Clinical Lecture
ON
THE CAUSES OF INTERMITTING OR PAROXYSMAL PYREXIA,
AND ON THE DIFFERENTIAL CHARACTERS OF ITS SEVERAL VARIETIES.

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FEVER, or pyrexia, is said to present three different forms—viz., continued, remittent, and intermittent. But thermometric observations have now shown that no fevers are absolutely continuous. Even the so-called "continued fevers" are more or less remittent. Enteric or typhoid fever, for example, in a large number of cases, is in its range of temperature a remittent fever, as much so as the malarious "remittent fever" of tropical climates. An intermitting pyrexia, however, is one of a very definite type. Here there are well-marked though varying intervals of complete absence of pyrexia between the different febrile paroxysms. The paroxysms themselves often present three distinct stages, known as "cold," "hot," and "sweating." The "cold" stage is characterised by a sensation of coldness or of creeping along the skin, or of cold water running down the back, on the part of the patient; very often he has a distinct rigor with chattering of the teeth, and his extremities may feel cold to the medical attendant; yet, with all this, the temperature is elevated, and it may be considerably, above the normal standard. In the "hot" stage the skin usually feels hot, dry, and pungent; and there is in most cases thirst, with more or less headache. The chief feature of the "sweating" stage is perspiration, more or less profuse, with relief of the former distressing symptoms, but often with considerable exhaustion. The initial rigor, or the entire cold stage, may be absent; more rarely there is no sweating stage; the paroxysm may consist solely of a temporary elevation of temperature.

The best example of an intermittent fever is that which is due to malaria, or what is commonly known as "ague;" and accordingly intermitting fevers from other causes than malaria are constantly mistaken for ague, and treated as such. Indeed, the word "ague" has come to be used in two different senses. Strictly it means fever of an intermitting form, resulting from malaria. In this sense only ought it to be used. But of late it has come to be employed, even by members of the profession, in a much wider sense, to signify paroxysmal fever from any cause which resembles ague. Hence the tendency to confusion and to serious errors in diagnosis has been increased. The very circumstance of a fever, because it is intermitting, being designated ague, has naturally led to intermitting fevers being ascribed to malaria which have been due to other causes. The frequency with which I have been consulted in cases which have been regarded as malarious fever, and which have been treated on that view, but where the patient has been suffering from other, and often serious, disease, the existence of which had not been suspected, has induced me to bring this subject before you. Since the commencement of the session I have brought under your notice cases which have occurred in my wards, and in which there has been intermitting fever from widely different causes; and my object to-day is to lay before you the principal causes of intermitting pyrexia, to impress upon you that this may result from many other causes than malaria, and to assist you in the discrimination of these causes.

The following, then, are the principal varieties of intermitting or paroxysmal fever:—1. Malarious intermitting fever (true ague). 2. Certain cases of typhoid or enteric fever. 3. Certain cases of relapsing fever. 4. Pyæmia. 5. Fever from pent-up pus independent of pyæmia. 6. Fever from ulcerative endocarditis, with or without embolism. 7. Tubercular fever. 8. Fever from lymphadenoma. 9. Syphilitic fever. 10. Urinary intermitting fever. 11. Hepatic intermitting fever. 12. Intermitting fever from morphia.

1. *Malarious intermitting fever.*—This is what is commonly known as "ague." It is a fever due to the taking into the system of malaria. As to the nature of malaria we know nothing, except that, with rare exceptions, which it would be out of place at present to consider, it appears to be generated in marshy, uncultivated places, where there is much decomposing vegetable matter, and especially in conjunction with a high atmospheric temperature. In England it was formerly a very common disease, but it is now unknown, except in a few localities which remain undrained and uncultivated. In tropical countries it is still one of the most prevalent diseases. But what is of importance as regards diagnosis to know is that the poison may remain dormant in the system for months, or perhaps for years, before showing itself. A man goes in August to reap the harvest in Lincolnshire, and is there exposed to malaria; but he may not get ague until the following spring, during the prevalence of east wind at his own home. Moreover, a person who has had ague once may continue to have attacks for years after he has left the malarious country, especially during damp weather, and when the wind blows from the east. These facts are of clinical importance, because in any case of intermittent pyrexia, before excluding malaria as the cause, it is necessary to consider not only whether the patient has been recently exposed to malaria, but also whether such an exposure could have occurred months before, or whether the individual had ever in his lifetime suffered from true malarious fever. The usual course of a malarious, intermitting fever is this:—The paroxysm presents the three stages already referred to—cold, hot, and sweating; but one or other stage may be missing. The duration of each stage varies. The usual duration of the entire paroxysm is from three or four to eight or twelve hours; it may last less than one hour, or as long as twenty-four hours. During the paroxysm there is always an increased formation of urea, and in most cases more or less enlargement of the spleen, which subsides. The cold stage is attended by considerable elevation of temperature from the first; in severe cases, known as "algide" or "pernicious," there may be great prostration, even collapse, and lividity of the surface. In the hot stage the temperature may rise to 105°, or even 108° or 109°; the skin is dry and pungent, and delirium is not uncommon. With the crisis there may be copious deposits of lithates in the urine, as well as sweating. The paroxysm always leaves behind it a feeling of more or less exhaustion. But the most remarkable feature about ague is that after an apyretic interval, longer or shorter, but in each case exhibiting a curious regularity or periodicity, the paroxysm returns. Thus we have quotidian, tertian, and quartan agues, &c. Upon what these paroxysmal accessions of fever with regular intervals depend we do not know. Rigors may occur at the commencement of any acute inflammation, or may usher in one of the exanthemata, but they are rarely repeated. They are believed then to result from the first entrance of inflammatory or disintegrated matters into the blood, the temperature being always already elevated. So likewise it has been suggested that the fever paroxysms in ague are due to the propulsion by fits and starts of products of disease from the enlarged spleen into the blood, just as accumulations of normal secretion occur in the pancreas and other organs, and are poured out by fits and starts during the normal process of digestion.[1] But the explanation is not satisfactory. The discharges of accumulated secretion in the latter case are determined by the ingestion of food, but in ague what determines the accumulation of morbid products in the spleen, or their discharge into the blood, remains, as I have said, unknown. After many paroxysms of ague the patient becomes weak and anæmic, and the spleen may be permanently enlarged. What I have described may be said to be the normal course of an ague; but there are endless varieties, some of which have an important bearing upon the question of diagnosis of ague from intermitting fever due to other causes than malaria. For instance, a sense of chilliness or a creeping sensation down the back may take the place of the rigor; the paroxysm be associated with severe neuralgic pains in different organs

[1] Billroth, Lect. on Surg. Pathology, Syd. Soc. transl., vol. ii. p. 55.

and regions of the body, suggestive of local disease; or an individual who has been exposed to malaria, or who, perhaps, has previously had ague in a typical form, becomes liable to single paroxysms of fever, presenting in a more or less marked degree the three stages already described, but occurring only at long and irregular intervals.

2. *Certain cases of enteric or typhoid fever.*—The pyrexia of enteric fever, which, as I have already told you, is usually remittent, may become intermittent. I have known rare cases of enteric fever commence with all the phenomena of malarious ague—two or more attacks of rigors, heat, and sweating. In some of these cases there has been reason to suspect that the patient had been exposed to the malaria of ague as well as to the poison of enteric fever. But what is far more common—in fact, of every-day occurrence—is this: For ten or fourteen days a patient presents all the usual symptoms of enteric fever, it may be, in a severe form, and including spots and diarrhœa. At the end of that time the attack seems to abort; the pyrexia at first becomes more remittent, and then it intermits. For a week or longer the morning temperature may be normal, or possibly at length subnormal; so that, were the patient only seen by the medical attendant early in the day, he might be pronounced free from fever. But in the afternoon or towards evening the temperature daily rises to 103°, 102°, or 101°; the patient becomes flushed and restless, and very often in the night he perspires. As a rule, the febrile paroxysm becomes each day shorter and less severe, until at last it no longer occurs; but now and then this state of matters may go on for two or three weeks. Should the patient be seen for the first time during this stage, his case might be mistaken for one of malarious ague. Moreover, it may happen that cases of enteric fever, mostly mild, present this intermittent character from first to last; and that they are really cases of enteric fever is proved by their occurring in the same family, and possibly at the same time, as typical and perhaps fatal cases of that disease. It is scarcely necessary for me to add that enteric fever may be intermittent in another sense—viz., that after the fever has entirely ceased for several days, or for two or three weeks, there may be one or more relapses.

3. *Certain cases of relapsing fever.*—The disease known as "relapsing" or "famine fever" is essentially an intermittent fever. It sets in suddenly with chilliness, and very often with actual rigors, which are followed by great heat and dryness of skin, the temperature perhaps rising to 106° or 108°; enlargement of the spleen and liver; not unfrequently jaundice and vomiting; severe pains in the head, back, and limbs; an abrupt cessation of all these symptoms with free perspiration about the fifth or seventh day. After a complete apyretic interval (during which the patient may get up and walk about) an abrupt relapse on or about the fourteenth day from the first commencement, running a similar course to the first attack, and terminating on or about the third day of the relapse. In most cases there are only two paroxysms, and the clinical history is so peculiar that it is impossible to mistake the disease for any other form of intermittent fever. But in others, the primary paroxysm, which may itself be shortened, is followed by several others, not exceeding, or perhaps less than, twenty-four hours in duration; and it can be readily understood that when this happens in a country where, as in some parts of India, malarious intermittent fevers are also prevalent, the diagnosis may be difficult.

4. *Pyæmia* is a frequent cause of intermitting pyrexia. The paroxysms, though often irregular, are at other times remarkably periodic. Sometimes they only recur after an interval of days; at others they are quotidian; while in some instances there may be more than one paroxysm in the course of twenty-four hours. Each paroxysm consists of a transient chilliness, or it may be of decided rigors with chattering of the teeth, followed by dry heat, and this by profuse sweating. Rigors may occur in only some of the paroxysms; but sweating is rarely absent. During the paroxysm the temperature may rise to 105°, 106°, or 107°. The paroxysm usually lasts from three to six, and rarely exceeds twelve hours. When the paroxysm is over, a certain amount of pyrexia may remain; the fever only remits. But very often there is a complete apyretic interval, during which the temperature may be even subnormal, such as 96° or 97°. Indeed, the great range of temperature in twenty-four hours is often remarkable; it may exceed 10°. Moreover, as in malarious ague, the spleen is often more or less enlarged. It has been suggested by Billroth that the paroxysms of fever in pyæmia have a similar origin to those of ague, septic matters, formed perhaps from decomposing pus, being poured from time to time into the blood, and under favourable circumstances exciting rigors and fever.[1] When the cause of the fever is external—an injury or surgical operation for example—the nature of the case is sufficiently clear; but when the cause is internal, such as gall-stone, ulceration of some mucous membrane (stomach, bowels, appendix, bladder, &c.), ulcerative endocarditis, disease of petrous bone, &c., it may escape observation, and there may be difficulty in determining at first the nature and the cause of the intermitting pyrexia. I have repeatedly known cases looked upon and treated as malarious ague where the real cause of the intermitting fever has been pyæmia; and the error is all the more likely to be committed from the fact that large doses of quinine, although they will not arrest, will sometimes postpone the paroxysms of fever.

5. *Pent-up pus, independent of pyæmia*, is not an uncommon cause of intermitting fever, the paroxysms of which are characterised by rigors, heat, and sweating. That there is no pyæmia is shown by the immediate and permanent cessation of the fever which often follows the evacuation of the pus; while a subsequent rise of the temperature is a certain index that the pus is not properly draining away. Thus, you have seen in our wards paroxysmal fever in empyema, in accumulations of pus in the pelvis of the kidney, in abscesses in the neighbourhood of mucous surfaces, &c. But one of the best illustrations of the fact to which I am now adverting, and also of the difficulty in distinguishing the fever from pent-up pus from that from malarious ague, is tropical abscess of the liver. This is often latent, so far as local signs are concerned; there is no obvious enlargement, pain, or tenderness of the liver, and the only evidence of its presence may be paroxysms of fever characterised by rigors, heat, and sweating, and sometimes periodic. The difficulty of diagnosis of these cases from malarious ague is further increased by the circumstance that patients with tropical abscess of the liver have usually been exposed to the ordinary causes of malarious fever. In several instances I have been consulted by patients for what they have believed to be a malarious ague, in whom the real cause of the fever has turned out to be an abscess in the liver. In all cases of supposed ague, where anti-malarious remedies fail to check the paroxysms of fever, the possibility of there being a latent abscess in the liver ought to be considered, and the suspicion of hepatic abscess will be almost converted into a certainty should the patient have been in the tropics, and have a history of dysentery, and should no other cause of fever be discovered.

6. *Ulcerative endocarditis and arteritis.*—I have already called your attention to ulcerative endocarditis as a cause of pyæmia, and therefore of paroxysmal fever. But now and then endocarditis gives rise to an intermitting fever, which may recur daily for weeks or even months, and yet where neither during life nor after death can any evidence of purulent deposits be discovered. In many of these cases, no doubt, the fever is associated with the formation of embolic masses in the spleen, kidneys, &c., but in others no such deposits can be found. The paroxysm is characterised by elevation of temperature (103° or higher), subsiding in perspiration, and occasionally it is ushered in with a severe rigor. You have recently had under your observation a patient with mitral disease, who had fever answering to this description; and not long ago I attended in private a patient with disease of the aortic valves, who, for three months before his death, had daily paroxysms of fever, sometimes commencing with a definite rigor, and always ending in copious perspirations, and where the friends were so satisfied that the fever was ague that nothing would satisfy them until the case had been treated with large doses of quinine. Ulcerative arteritis may, I believe, give rise to similar attacks of fever.

7. *Tuberculosis*, in its early stage, is often attended by an intermitting or sometimes a remitting fever. The fever and consequent exhaustion in these cases are often severe out of all proportion to the amount of discoverable local mischief; and, what is more to the point, the fever may exist for many weeks before any local signs of tubercle can be discovered at all. I have repeatedly been consulted in cases of this sort, on the supposition that the patient was suffering from either enteric fever or malarious ague, and where, on

[1] Loc. cit., ii., 55.

the one hand, the persistence of the fever over a month, and on the other the failure of quinine to check the paroxysms, had thrown doubts on the original diagnosis, and had led to further advice being solicited. The paroxysms of fever are chiefly towards night, the temperature rising then to 102° or 103° or higher, and they are followed by night-sweats. Actual rigors are rare. In the morning and during the greater part of the twenty-four hours the temperature may be normal. After a time the real nature of the case is revealed by the development of local signs at the apex of one lung or by the supervention of symptoms of acute meningitis or of chronic peritonitis. Occasionally the fever subsides, and the local signs are slight; but not unfrequently the patient becomes suddenly and rapidly worse; and there is what may be termed a sudden explosion of tubercular deposit in the lungs or elsewhere. The fever which in these cases precedes the appearance of local signs may be due to the deposit of tubercle in the lymphatic glands, to the development of an active process in obsolete caseous deposits, or to the deposit of scattered miliary granules, which in no way alter the normal physical signs of the parts. Very often, in advanced phthisis with marked physical signs, the pyrexia presents an intermitting type, the temperature in the morning being normal, but later in the day rising to 102°, 103°, or higher, and then subsiding again towards morning with copious perspiration. In these cases, however, there is not much likelihood of there being any difficulty in diagnosis.

(To be continued.)

EXTRACTS
FROM
Clinical Lectures
ON
CASES IN SURGICAL PRACTICE.

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I. *Paralysis of the Fifth and Third Nerves on the same side, probably from Syphilitic Gumma.*

THE patient, a pallid man of middle age, had complete ptosis, dilated pupil, and entire inability to use the three third nerve recti. In addition he had numbness of the whole of the side of the face, not, however, amounting to absolute anæsthesia, with wasting of the temporal and masseter muscles and of the anterior belly of the digastric. Thus there was proof of implication of the trunk of the third and of both roots of the fifth. The condition had been increasing for some weeks, and was unattended by other indications of cerebral disorder. The demonstration of the paralytic atrophy of the three muscles was very definite and interesting; not the slightest action on the part of any of them could be detected. I drew attention to the fact that the buccinator had wholly escaped paralysis, as it almost always does in motor failure of the fifth. The eye was not in the least congested, and its being perfectly covered by the drooping lid was no doubt a valuable protection to it. The man was to be congratulated in one respect—that, having paralysis of the fifth, he had also paralysis of the third. There was the history, as is usual in these cases, of remote syphilis; and iodide of potassium, in ten-grain doses, was prescribed.

II. *Herpes Zoster Frontalis et Trochlearis.*

The subject of this case was a bald old man who might have sat for the portrait of the disease which is given in Danielsen and Boeck's Atlas. He came six weeks after the eruption, on account of the implication of the eye. His forehead and the anterior two-thirds of the scalp on the left side were covered with red scars; the limit of the median line being observed most accurately. Having remarked that herpes should be defined as "a disease of the nerves, often attended by a peculiar eruption of the skin," I drew attention to the importance of observing accurately the regions of skin affected, since these give the clue to the nerves involved. In the case of herpes of the upper division of the fifth it is very important to notice whether or not the side and tip of the nose suffer. The bridge and upper half of the side of the nose are supplied by the trochlear branches, and these give also some filaments to the eye; but the lower third and tip are supplied by the nasal branch of the oculo-nasal, and this is the branch which sends an important twig to the lenticular ganglion, and which supplies with sensory (nutritional?) filaments the eye itself. I remarked that I had never seen a case in which the whole of the side of the nose was severely affected in which the eyeball did not suffer severely. The implication of the eye is usually in direct proportion to the severity of the eruption on the nose, and thus the skin-region becomes a clue to the probability of implication of the organ of special sense. In the present case the conjunctiva was much congested, and the cornea—perfectly clear in the greater part of its extent—showed a small ulcer in its centre. There were also iritic adhesions, but without any muddiness of the iris-structure.

Since this case occurred I have seen in private a gentleman who six weeks ago had two patches of gangrenous herpes on the left side of his face—one above the ear, the other on his lip. After the herpes came severe pain in the parts (neuralgia), and after the pain came deafness in that ear, and a peculiar form of slight laryngeal hoarseness. No herpes was noticed in the mouth. It is the first case which I have noticed of ear implication in herpes, but there can be little doubt that such cases occur if looked for.

III. *Destructive Symmetrical Iritis without evident cause.*

A very important example of this affection was sent to me by Mr. Charles Palmer, of Yarmouth. The patient is a single young woman of about twenty-five. No cause—that is to say, neither syphilis, rheumatism, gout, nor injury—can be made out, and the general health appears to be good. The iritis has been most severe, and has resulted in blindness with exclusion of pupils and disorganisation of the iris-tissue. It is remarkable that it has been almost wholly painless. An almost precisely similar case was that of a young man from Sheffield, who was also under care at the same time. In him the eyelashes had turned white. I suspect that these cases are neurotic in origin.

IV. *Chancre of the Upper Lip.*

A young man was admitted six weeks ago with a large indurated sore on his lip. Its characters were most definite, and under the jaw were a number of enlarged glands. The skin was covered with a lichenoid and papular rash. He did not know how he had caught the sore. He first observed a little crack, then a month later it began to inflame and harden, and in another month the rash began to appear. Having remarked on the case as an example of non-venereal syphilis (*syphilis sine coitu*), or probably chancre from kissing, I drew attention to it as an illustration of the early stages of the disease. For practical purposes we may divide the early phenomena of syphilis into three periods of one month each. The first month is occupied by the incubation of the chancre, and during it there is either no sore at all, or a sore which is soft, suppurating, and without definite character. At the end of this first month the process of induration will be commenced. Another month may be allowed for the full development of the chancre and for first appearance of the constitutional symptoms; and at the end of two months from the contagion the sore may be expected to be very hard, the bubo well characterised, and the skin mottled with a roseolous rash. If treatment be avoided, the rash will develop further during another month, and at the end of three the chancre will still be in full vigour, and the skin covered with a multiform eruption. The disease will now be at its full height, and it is at this period that iritis and retinitis are most likely to occur. In this case the lad has now been one month under treatment by two-grain doses of grey powder three times a day; and, without ptyalism, and without any interference with general health, the induration has melted away, and the rash almost wholly disappeared.

V. *Case of Rapid Cure of Severe Syphilis by Profuse Ptyalism.*

In connexion with the above, in which syphilis is being cured by small doses of mercury administered through a long period, salivation being avoided, I drew attention to another, which occurred a month ago, in which profuse salivation appeared to be productive of the best results. A

married woman of middle age was admitted with a most copious scaly and papular eruption. It covered her face, trunk, and extremities, not any part escaping, and the profuse production of scale-crusts was a very remarkable feature. On the arms it might have been mistaken for common psoriasis, but on the face there could be no doubt as to the diagnosis. Mercurial baths were ordered, but after the third she became freely salivated. For a week or two she was confined to bed, and in a very feeble state from the profuse ptyalism. During this period the eruption vanished as if by magic. No more mercury was used in any form, and at the end of a month the woman left the hospital covered with stains, but having nothing whatever remaining but stains. She was charged to return in a month, that we might know if any relapse occurred.

I remarked in connexion with this case that it was the most rapid cure of a severe secondary eruption which I had ever known. Although, on the whole, I prefer the long-continued treatment by small doses, yet it is well to bear in mind that in certain cases mercury appears to be far more efficient when pushed to its full physiological influence. We must avoid prejudging the question, and keep our minds open for the reception of all evidence that may be forthcoming. In some acute inflammatory affections, not syphilitic, benefit is observed immediately that salivation occurs, whilst none is witnessed before.

VI. *Onychia Maligna.*

A case of onychia maligna on the great toe of a boy two years old led to the discussion of the evidence of inheritance of syphilis. The child looked quite healthy, and was florid and well-grown, but there was a statement that he had suffered from snuffles, sore-throat, and sore anus, and that one of his younger brothers had done the same. I remarked that although this triad of symptoms is always suspicious, and when occurring under the inspection of the surgeon, often conclusive, yet we must be on our guard when we have only the mother's statement. Thrush is common enough in children not syphilitic, and it may often cause soreness at the anus. True cryptogamic thrush is probably not more common in the syphilitic than in others, and the reason why, when in search for a syphilitic history, we so often ask about it is, that often specific stomatitis is mistaken for it. So also, when we ask, "Did the thrush go through it?" what we really mean is, "Were there condylomata at the anus?" Such questions can only lead to a rough approximation to the truth. The evidence is greatly strengthened if we find that the sore anus lasted long, and required medical treatment, so also if the same thing happened to more than one baby. Although, on the one hand, we must be cautious in accepting trifles as proof of inherited taint, we cannot, on the other, fail to fully acknowledge that freedom from symptoms and apparent good health are no guarantee that taint is absent. It is very common indeed for a child to escape all evidence of taint during infancy, and yet to suffer at a later period. On the whole, in the present instance I was inclined to believe that the child was really syphilitic, and that the onychia was due to that cause. The affection had proved very troublesome in the out-patient's room, and the nail had in vain been entirely removed a few months ago. The treatment ordered was the application of the liquor arsenicalis and iodide of potassium externally.

Our next case bore importantly on the question just discussed as to the occasional absence of infantile symptoms of syphilis. The patient, a lad of about fifteen, was the subject of

VII. *Interstitial Keratitis, with Deafness.*

His deafness was symmetrical. It had come on during the last three months, and it had progressed to such an extent that the lad carried in his hand a slate and pencil for writing. He had not had any discharge or pain, but he complained bitterly of "such a ringing in my ears." I remarked that deafness of this kind and intensity, and at this age, was almost conclusive in itself as to inherited taint. We know of no other affection which in young persons can, without otorrhœa or any proof of inflammation, proceed in the course of a month or two to the entire loss of the function. Such cases are common enough in those who inherit syphilis, and they occur in connexion with no other cause. In this instance the lad suffers also from symmetrical keratitis, and of this disease precisely similar statements are true. Thus, although his physiognomy is scarcely peculiar, his teeth are well formed, and we know nothing of his family history, yet the simultaneous occurrence of two maladies, each of which is characteristically syphilitic, justifies us in a confident diagnosis.

VIII. *Amputation through the Thigh for Tumour; Suspected Pyæmia; Symmetrical Abscesses.*

There is in Talbot ward a young man whose thigh was amputated almost six weeks ago for a large tumour developed between the bones. His stump has healed, and the ligatures have long ago come away. He has had no rigor, takes his food, and appears to be doing well; but symmetrical abscesses of considerable size have formed above and behind his elbow-joints. Both have been opened, and both developed at the same time. This symmetry of abscesses is, I think, rare in pyæmia; but the character of the inflammation, and the rapid healing after opening, strongly suggest a fear in that direction. There are no indications of internal mischief. [This patient subsequently made a good recovery.]

IX. *Paralysis of both Sixth Nerves after Injury to the Head.*

The man in whom this lesion is present has, in all probability, suffered a fracture through the base of his skull. He bled at both ears and from his nose. His portio dura is paralysed on the right side, and he is deaf in both ears, though not absolutely so, and in the right he was, he says, deaf before his fall. Both sixth nerves are absolutely paralysed, and the eyes converge. The man is quite free from brain symptoms, and is doing well. In anticipation of the occurrence of arachnitis he was put under the influence of mercury during the first week, but as he is now wholly without symptoms, excepting the paralyses, it has been discontinued.

What the precise lesion may be which has caused complete paralysis of both abducentes it is somewhat difficult to conjecture. In all probability the fracture crosses the right petrous bone, and it may cross the sella turcica. I mentioned at the bedside that I had seen several cases of paralysis of one sixth nerve after injury to the head, but that I did not remember one in which it was double. During the same week I had seen with Dr. Macpherson, of Mildmay-park, a little girl who had been knocked down in the street by a horse, and in whom, without any other cerebral symptoms, the right sixth nerve was quite paralysed.

X. *Cases of Compound Fracture of the Femur, treated by lead and spirit lotion.*

We have at present in the accident wards two cases of compound fracture of the femur, which have done well, and healed without any suppuration. One of these was a very severe injury, the bone being comminuted just above the knee-joint, and a considerable fragment requiring removal. The treatment consisted in the sedulous application of the lead and spirit lotion to the entire limb. Under the same measures another case, admitted a fortnight ago, has done exceedingly well. In it the humerus had sustained a compound fracture just above the elbow, the lower fragment being split vertically. The joint was opened, and synovia was escaping. The wound has closed without the slightest suppuration.

Since the above was written two other cases of compound fracture of the femur, one of them attended by large effusion of blood into the limb, have done equally well under the same treatment.

XI. *Symmetrical Cancer of the two Breasts; Paraplegia from Secondary Cancer of the Spine.*

I drew your attention some few weeks ago to the case of a Jewess who is the subject of cancer of both breasts, and in whom symptoms of paraplegia are coming on. In each breast the whole gland is infiltrated, and on both sides the axillary and cervical glands are implicated. She is only forty, and knows of no history of cancer in her family. I said I did not believe that the cancer in the right breast, which has been developed more recently than in the left, was really secondary to it, but that rather both are to be regarded as primary, and as proof of extreme constitutional predisposition. As regards the paraplegia, I said that no doubt it was due to secondary malignant growths in the vertebral canal pressing upon the cord and inducing disease in it. As yet the paraplegia is incomplete and affects motion rather than sensation, and the sphincters have not failed. As usual, there has been severe pain in the back. As she is a Jewess I fear there is no hope that we shall be permitted

a post-mortem, but the progress of the paraplegia will be well worth your careful study. I have repeatedly witnessed this form of paraplegia in cases of recurrent cancer after excision of the breast, and in two or three cases other bones besides the vertebræ were affected. In two ladies some years ago, on whom I had operated within a few weeks of each other for cancer of the breast, almost precisely the same series of events followed. Both were partially paraplegic, when in each spontaneous fracture of the femur from cancer of the bone occurred. In some cases the disease of the spine stops short of paraplegia, severe pain in the back being the only symptom. In these probably the cord escapes any implication in inflammation. Modern observers are much inclined to believe that myelitis is almost a necessary link in the chain of which paraplegia is the final result, and that pressure alone rarely produces that symptom. Since I spoke to you last week on this case I have received from Dr. James Hutchinson, the distinguished physician to the Pennsylvania Hospital, a copy of a valuable paper on this subject. He has recorded two cases with post-mortems, and in each myelitis was found. He insists on the fact that pain usually precedes symptoms of paralysis, and that the advent of the latter is usually definitely due to myelitis. His concluding sentence is:—"Symptoms belonging properly to myelitis are, as I have attempted to show, paraplegia, impairment or loss of the different varieties of sensation (anæsthesia and analgesia), loss of power over the bladder and sphincter, and permanent contraction of the limbs and bedsores."[1]

XII. *Recovery from Paraplegia possibly of Syphilitic origin.*

We sometimes, in going over the past life-histories of our patients, come upon interesting fragments of evidence, always, however, to be taken with a certain amount of hesitation on account of the sources of fallacy. A gentleman who consulted me a few days ago for a syphilitic gumma in his tongue told me that he had formerly suffered from paralysis, and had wholly recovered. The facts were these. Fifteen years ago he had syphilis, with eruption, &c., rather severely, and took mercury. Almost as soon as his treatment was over, he began rather suddenly to lose the use of his legs. The weakness began at his heels, and crept upwards, and his lower extremities wholly failed. He was on the couch for three or four months. His arms were weak, but not wholly paralysed. After four or five months' treatment he wholly recovered, and has never since had any reminder of it. He was married at the time, and married a second time some years afterwards. He has now enjoyed ten years of good health, and has during that time had nothing of a specific character.

FURTHER REMARKS ON THE CONTAGIOUSNESS OF YELLOW FEVER.

BY ROBERT LAWSON,
INSPECTOR-GENERAL OF HOSPITALS.

(Concluded from p. 589.)

THE important points in the foregoing details are—first, that extensive and repeated importations of malignant yellow fever were not followed by an extension of the disease to any of the susceptible individuals who were exposed to the emanations from the sick; secondly, that at the end of October yellow fever appeared among the patients in hospital who had not been in communication with those labouring under yellow fever, apparently from exposure to the emanations from the marshy ground in its vicinity, and the hospital sergeant and orderlies of the 33rd, who had all come into contact with the imported cases for months previously, without being affected, were then attacked, and six of them died; thirdly, that, after excluding the night air, the 47th had no further attack in the hospital, and only a single case in the middle of December, which came from barracks; fourthly, the immunity of the men on guard at the hospital, who were outside the usual range of the emanations carried by the wind from the swampy ground. These facts leave no alternative but to conclude that the yellow fever among the residents in the hospital, in this instance, was due to emanations proceeding from the marshy spot mentioned. Nor is this the only occasion yellow fever has been observed to spring up here under similar circumstances. In 1839, after heavy rains alternating with hot sun, which is described to have rendered the low ground close to the hospital "a complete swamp," the first cases of yellow fever in the garrison were the hospital sergeant and one of the orderlies of the 52nd, who were attacked here on the 29th of October. The disease then appeared among the soldiers' families of that corps, occupying huts near the Brick barracks, rather less than half a mile away. It then affected the officers, and finally the men. Altogether there were 93 cases, and 27 deaths, in the regiment.[1] So long ago as 1816 the liability of persons in the military hospital to fever was remarked. During a severe epidemic that year 11 of the servants here contracted fever, while of those at what was designated the naval hospital, in a more elevated and dry position, nearly half a mile to windward, there were only 2 attacked (both of whom had frequently to visit the former), though a large proportion of the fever cases among the troops, and all the sick of the navy, comprehending many of the worst cases of yellow fever, were treated in it. Even at the military hospital, where the fever cases were placed on the upper floor, the orderlies who attended them, and who invariably slept on the same floor, were less frequently attacked than those employed otherwise, who had not this advantage of elevation during the night to place them above the denser portion of the emanations from the ground.[2]

The following is another well-marked example of the harmlessness of yellow fever cases of the most virulent description when imported into the same locality when no local cause was in operation. H.M.S. *Dauntless* arrived at Barbadoes on Nov. 16th, 1852, from St. Thomas, having had 41 cases of fever and 11 deaths during the passage. The sick were sent to the military hospital the following day. Part of the crew were landed and encamped, but as it was deemed impossible to land the whole of them at one time, those retained on board continued to be exposed to the causes of the disease in the ship herself, and new cases were in consequence of almost daily occurrence. Between Nov. 17th and Jan. 5th, 1853, 22 officers and 135 men were admitted to the military hospital, and 13 of the former and 52 of the latter died. Mr. Denny, surgeon of the 34th Regiment, states: "Although 61 men of the *Dauntless* have been treated in the wards of the 34th hospital, indiscriminately intermingled with the soldiers of that corps affected with various complaints, in no instance has any individual been attacked under such circumstances, nor has any hospital attendant suffered. I have now (Jan. 5th) 18 cases of fever from the *Dauntless* in hospital, and 37 men of the 34th Regiment, but not one affected with any febrile disorder."[3]

Proceeding now to Jamaica, we have Port Royal, the naval station, with a dockyard and naval hospital, besides a small garrison consisting usually of a company of European artillery and a detachment of black troops. The inhabitants of the town had suffered a good deal from intermittent and remittent fever during the summer of 1857, but the local medical practitioner, as well as the military and naval surgeons, had not met anything like yellow fever among them, and the only case which had occurred at this station was in a white artilleryman who had been at Spanish Town on the 24th July, and on his return was confined in the cells from the 26th to the 31st. That afternoon he was discharged, and after drinking freely at the canteen, went to hospital in the evening with fever, which proved to be yellow fever, and he died on the 2nd August with black vomit. Having been at Spanish Town so recently, where he had been drinking and exposing himself, it is impossible to say whether this man's attack was attributable to that locality or to Port Royal.

There was no other case here until October, when a very sharp outbreak commenced, which was at first confined to a line of three buildings 225 feet in length, parallel to the line wall, and distant from it some fifty feet. The wall is not above ten or twelve feet high, and does not prevent the free access of the sea breeze during the day. The space between

[1] See Transactions of College of Physicians of Philadelphia, Third Series, vol. iii. The paper is accompanied by a bibliography of the subject.

[1] Quarterly Report of Medical Officer in charge, to Dec. 31st, 1839.
[2] Bancroft's Sequel to an Essay on Yellow Fever, p. 448-9.
[3] Milroy in THE LANCET, April 13th, 1861, p. 368.

these houses and the wall is covered with a bed of loose open gravel, and a foot beneath the surface of this the soil was moist. The houses were of two floors; the upper floor of the end ones was occupied as officers' quarters, and of the centre one as mess-room, and the ground floors were employed as offices, library, stores, &c. In the southernmost of these houses an officer's wife, who was nursing an infant about two months old, was attacked with fever on October 16th; on the 17th the mess waiter, who slept on the ground-floor of the mess-room, was attacked; on the 19th the husband of the first case, and the same day a child of a soldier who acted as librarian, and who passed much of its time with him in the library on the lower floor of the southernmost house. This man and his family resided in another house in the same line with, but 400 feet distant from, the library, with seven other families, all of whom remained healthy, though the case last mentioned and the following one was treated there. On the 23rd another child of this man's was attacked, who had also been much with him in the library, and on the 24th the man himself. On the 26th a second mess waiter was seized who had slept in the same place as the previous one. On the 31st an officer's wife, who lived at a distance, but had attended to the first case very assiduously, contracted fever. On Nov. 7th, a young officer living in the northernmost house was seized, and on the 10th another in the same house. All these were well-marked cases of yellow fever, and five of them died with black vomit. The white artillery, with a very few exceptions, were removed to the mountain station of Newcastle on Oct. 28th. Of these three were attacked at Newcastle, and one died; one of these had been much in the library at Port Royal, but not near any fever case, the other two had been in attendance on fever cases. Two white artillerymen who remained at Port Royal were seized on Nov. 15th and Dec. 3rd; both died yellow and with black vomit. A black soldier was attacked on Dec. 17th; he had yellow conjunctivæ, hæmorrhage from gums, and albumen and tube-casts in urine, but recovered. This man occupied a bed close to a window on the ground floor of the men's barrack, which is 400 ft. to the west of the southernmost of the three houses mentioned above; the ground outside the window was removed to some depth, to improve the surface drainage, just before his attack. Two European artillerymen, who were sent from Port Royal to the Kingston Penitentiary on Oct. 23rd, had fever there on Oct. 28th and Nov. 11th respectively; the former died, the latter recovered. The medical officer who had attended most of the above cases at Port Royal embarked for England on Dec. 12th, was attacked the same day, and died at St. Thomas on the 16th, yellow and with black vomit. No case of yellow fever had been brought to Port Royal shortly before the outbreak commenced, nor had any of the subjects of the first eight cases, with the exception perhaps of the third, been away from it for some time before; neither had the librarian and his children, or the mess waiter, any communication with the first case, or with each other, after the fever commenced in them. We must conclude, then, that these persons contracted the fever from exposure to emanations originating in the locality, as they have been shown to do above, both at Sierra Leone and Barbadoes. What occurred at this particular spot may of course have taken place at others in the neighbourhood also, or elsewhere, as, for instance, in the penitentiary at Kingston; and until this possibility of the disease originating from such local causes in any given instance be excluded satisfactorily, we can never be justified in concluding that it arose from communication with imported cases.

The following striking case of importation took place a few months after the outbreak just detailed. The U.S. steamship *Susquehanna* was lying at Greytown, in the middle of March, 1858, when the first case of fever appeared in her. On April 5th she arrived at Port Royal, with her crew suffering from yellow fever; and within the next three days eighty-five of these were landed at the naval hospital, where twenty-three died with the characteristic features of the disease. Some of the medical attendants and visitors had never had yellow fever; and, though no seclusion was practised, not a single case occurred, either within the hospital or in its neighbourhood. One man of the *Imaum* receiving-ship, who attended the funeral of some of the *Susquehanna's* people, but in a separate boat, became affected with yellow fever within a day or two; the disease, however, ceased with him, and, as sporadic cases had occurred in Kingston both before the arrival and after the departure of the *Susquehanna*, nothing can be made of this single case. After leaving Jamaica the *Susquehanna* proceeded to New York. During the passage there were several fresh attacks and some deaths; and when in quarantine at New York all the crew who were sent on shore continued in good health, while of the small number left on board six sickened and two died. At last everyone was removed from the ship, and she remained unoccupied for nearly three months, at the termination of which period her stores were discharged, when several persons employed in landing them were attacked with yellow fever. White troops had returned to Port Royal in March, 1858, and remained quite healthy, though the officers occupied some of the quarters which had proved so sickly in the previous October; and the town itself was healthy. The cause of the disease was evidently in the *Susquehanna* herself; and, having arrived at Port Royal when there was no cause of fever active there, her people, like those of the *Hecla*, *Dauntless*, and others at Barbadoes, could not communicate the disease, though it was of a virulent form. Had her arrival taken place shortly before the outbreak among the troops six months previously, many would have overlooked all the circumstances detailed above, and have concluded that she had imported the disease and communicated it to them.

A CASE OF BULLET-WOUND OF THE ANTERIOR LOBES OF THE BRAIN.

WITH REMARKS.

BY THOMAS SMITH,

SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

THE following case should, I think, be put on record, as the patient made a good recovery, without loss of mental or physical power, after shooting himself clean through the head from side to side, the bullet passing in at one temple and out at the other.

A person of education and some acquirements, aged thirty-five, was brought into St. Bartholomew's Hospital under my care within half an hour of having made an attempt on his own life with a revolver.

There was a wound in the fore part of the right temple, from which blood was flowing freely; blood was also running from the nostrils, and there was great and rapidly-increasing swelling beneath the scalp, which extended all over the frontal and orbital regions to the opposite side of the head, where there was a large effusion of blood beneath the scalp; and here, in the left temple, a hard body was to be felt, which was taken to be the bullet; the soft parts about the fore part of the head were emphysematous. The cellular tissue of the eyelids, orbits, and brows was distended with blood, the right eyeball being protruded and the ocular conjunctiva being pushed forward. The bleeding from the wound, which was very free, was at first controlled by pressure on the temporal artery, but after a while blood began to flow from a deeper source. The pupils were natural, pulse feeble, respiration natural.

The patient was quite conscious, and answered questions correctly concerning his name, age, address &c. of his own accord. He spoke in German, but when addressed in either French or English he would reply in the corresponding language. He showed no sign of mental incapacity, nor was there any loss of motor power. Being blinded by the swelling of his eyelids, and annoyed by the quantity of blood about his face, he searched methodically for his handkerchief in various pockets, and having found it, used it in the ordinary way. Whilst lying on the stretcher in the surgery he vomited several times, the vomit consisting of blood mixed with food, the straining in each attack of sickness forcing blood and cerebral substance from the wound in the right temple. A probe could be passed its whole length into the wound and across the head without meeting with the slightest resistance. On being asked if he felt it, the patient replied, "in the ear." A piece of lint soaked in carbolised oil, with a pad and a light bandage, being applied, the patient was removed to bed, when it was found that he had passed both fæces and urine under him. The quantity of

blood lost was very considerable. He passed a very restless night, and could with difficulty be kept in bed.

On the second day he was quite conscious, but being unable to see he imagined himself in a hotel, and ordered various delicacies of the "waiter." He consented, however, without remark to take the more modest fare supplied to him. He slept at intervals, but was at other times restless and troublesome. Pulse 68; temperature 99°. The swelling on the left temple was diminishing, and the crepitation had nearly disappeared. The swelling of the eyelids remained stationary. Blood and brain-substance still escaped in small quantities from the wound, and blood evidently flowed into his pharynx, for he frequently hawked it up and expelled it from the nostrils.

Third day.—Slept well; less restless; blood still oozed from the wound, but no more cerebral substance. Pulled off the wound dressings frequently. Pulse 68; temperature 99·7°.

Fourth day.—A good night; much quieter; took food better. Could open his left eye, and could see with it.

Fifth day.—Improving; spat up from his throat a quantity of blood; blood also oozed occasionally from the nostrils. Some bleeding from the wound. Swelling about the forehead and orbits was subsiding rapidly. The wound on this day was first observed to pulsate. Pulse 60; temperature 98·6°.

Sixth day.—The swelling over the opposite temple was first observed to pulsate; some emphysema was noticed at the same place. Pulse 78; temperature 100°; this was the highest point his temperature reached.

Seventh day.—Wandered in the night; was violent with his nurse, striking her with his fist; when awake he was quite rational, and made inquiries about the progress of the Afghan war, and delivered himself of some very uncomplimentary strictures on English foreign policy. He was much the better for a purgative on this day, his temperature falling to 99°. Pulse 64.

Ninth day.—Told a friend that his wound had been received in the Franco-Prussian war (in which he served); on other subjects he was quite rational, though he was irritable and morose.

Tenth day.—Wrote a letter, which gave evidence of some delusions with regard to his pecuniary resources.

Eleventh day.—Very unruly and irritable; could not be kept in bed, and was therefore allowed to dress himself and get up. Wrote another letter, but could not write the address. Sputa still tinged with blood; ecchymosis rapidly disappearing, except from right eyelid. Pulse and temperature normal.

Twelfth day.—Very much better in all respects.

Fourteenth day.—Struck his nurse, pinched her; was very irritable. Sputa still bloody.

Fifteenth day.—Not so well; drowsy; rather deaf. Swelling in left temple was larger; pulse and temperature normal. Pulsation was still very distinct over both temples, in the site of the wound, and in the swelling over the left side of forehead.

Sixteenth day.—Much better. An abscess has burst in the right eyelid. Still very irritable.

Seventeenth day.—His temper has decidedly improved. Has ceased to spit blood.

For the next three days he made rapid progress, his intelligence being perfect, though his temper was very morose at times. The pulsation and movements of respiration in the swelling on the left temple were very distinct. By this time one could readily feel the bullet in the lower part of the swelling on the left side, while in the upper part was a piece of detached bone about the size of a sixpence; both these bodies were lying movable in the blood-swelling.

On the twenty-third day he casually mentioned that he was in possession of a million of money, but showed no other sign of mental disturbance.

By the thirty-first day the wound in the right temple had closed, and the pulsation and swelling on the left side had much diminished.

On the forty-third day the pulsation had ceased and the piece of detached bone had become fixed. He had been up and about the ward for some days, complaining much of coldness and weakness. His natural temper had been regained, and his manners were courteous and his bearing that of an educated gentleman. Soon after this time he left for the Highgate Convalescent Hospital.

With regard to the condition of the special senses in this patient's case, it was noticed that the hearing was defective, the watch being heard at two inches on one side and twelve inches on the other. Two months after his admission Mr. Vernon examined the eyes, and reported of the right eye—optic disc atrophied and cupped, eye amaurotic; half the optic disc of the left eye in the same condition. The patient described his own sensation at this time as that of a cloud drawn partly over his right eye. Shortly before leaving the hospital Mr. Vernon reported that the optic disc of the right eye was much in the same condition, though the vision had considerably improved. In the left eye the disc had recovered its natural appearance, and the vision was normal. The sense of smell was impaired in acuteness, and more deficient on the right side than on the left. Early in his convalescence the loss of smell was very considerable, but before he left the hospital he had regained it in the left nostril to some extent.

The position of the entrance wound in the right temple is shown in the accompanying woodcut; also the point in the left temple where the bullet escaped from the skull. The former is marked by a slight depression in the bone situated one inch and a half behind the outer angle of the orbit, three and a quarter inches in front of the tragus, and on a level with the highest part of the eyebrow. The aperture of exit in the left temple is indicated by a depression four inches from the tragus, and two inches from the external angle of the orbit. Just above this spot is a fragment of bone, once movable, now fixed, and at a lower level the bullet can be felt, still movable. The woodcut represents the exact size and shape of a bullet extracted from one of the undischarged barrels of the pistol which inflicted the injury.

As regards the course of the bullet in this case, it is certain, from the position of the apertures of entrance and exit, that it entered the outer surface of the anterior lobe of the brain, a little above the level of the highest part of the roof of the orbit, and that it emerged from the left anterior hemisphere at a spot rather further back and at a slightly higher level. From the large effusion of blood in both orbits, which so rapidly followed the injury, there is reason to believe that in its passage across the skull the bullet fractured the roof of both these cavities. From the free and persistent epistaxis, it is probable that the cribriform plate of the ethmoid or some part of the roof of the nasal cavity was broken into, while there was evidence, from the symptoms, that the olfactory bulbs did not escape disturbance or injury. In opposition to the view here expressed as to the course of the bullet, it may be said that there is no direct proof that the left hemisphere of the brain was wounded at all, that the bullet may have run over the roof of the left orbit and up the inside of the skull to its point of exit from the bone. I am, however, sure that the probe

which I passed shortly after the accident into the wound, traversed, without any sensation of resistance, both hemispheres, and one would think it is impossible that a bullet of the size and weight indicated, after passing through one side of the skull, could have knocked a piece of bone clean out of the opposite side unless it impinged upon the inner surface of the bone in a direct line. I would also point to the pulsation and respiratory movements observed in the blood-tumour over the aperture of exit; for these were so forcible as to indicate that the interior of the brain was in direct contact with the ecchymosis. It seems almost certain that the part of the hemispheres that was damaged was the anterior frontal portion just above the orbits. In this locality an injury such as the patient suffered from could be inflicted without loss of motor or sensory power, and without arresting any of the functions essential to life, nor would it necessarily interfere with the exercise of ordinary mental powers.

There can be no doubt that there was a temporary but very marked alteration in the patient's temper and disposition, as the result of the injury. For a time extending over three or four weeks he was most overbearing and occasionally violent in his conduct and his behaviour to his nurses. At times he was lethargic, at times restless and irritable; but as he recovered strength he regained the disposition which his friends said was natural to him, and before he left the hospital his manners were courteous and his bearing that of a well-conducted gentleman. For one or two days in the course of his convalescence he was the subject of delusions in respect of his pecuniary resources, and on the eleventh day he was unable to address a letter which he had written.

I am not aware that any case has yet been recorded of recovery after perforation of both frontal lobes of the brain, though several instances have occurred of wounds or perforations of one lobe, where the patient has recovered more or less completely; but even in these cases it is rare to meet with so complete a restoration of the mental faculties as occurred in the case here related. In Dr. Ferrier's work on the Localisation of Cerebral Disease will be found an excellent *résumé* of the recorded results of wounds and injuries of the frontal lobes, and from these it is evident that in most cases there was a decided impairment of mental power, though varying much both in kind and degree.

THE SULPHUR-WATERS OF THE PYRENEES.

BY G. V. POORE, M.D., F.R.C.P.,
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NOTHING is more gratifying in the treatment of disease than the occasional success which attends the employment of so-called alterative medicines, among which we may place mercury, iodine, arsenic, phosphorus, and the sulphides. It is common to see effects produced by these preparations which are at once tangible and decided, but unfortunately it is common also to see them utterly fail to produce the effect desired.

Anyone who has employed the sulphides in the treatment of disease must have been alternately pleased and disappointed; for, although the effect produced is often exactly that which Dr. Ringer describes in his Handbook of Therapeutics, equally often, if not more often, the result appears to be absolutely negative. One reason for this is undoubtedly to be found in a faulty selection of cases; and it may reasonably be hoped that an increasing knowledge may cause a diminution in the number of patients who, having been treated with sulphides, have failed to derive the expected benefit. Another reason also is to be found in the great instability of the sulphides themselves, which immediately oxidise on exposure to air; and it may safely be said that a very large proportion of the patients for whom the sulphides are prescribed get scarcely a single dose of the medicine which it is desired to give them, but receive in lieu of it a quantity of harmless or inactive sulphate.

When prescribing sulphides, it has been my invariable custom to advise the patient to get very small quantities made up at a time, and to warn him that unless the medicine has the familiar odour of rotten eggs it can do him no good. Better than giving a solution of the sulphides, is to allow the patient to have a small and well-stoppered bottle filled with potassium or calcium sulphide, whence he may take his dose, roughly estimated on the point of a penknife, as required. Good service has undoubtedly been done by the introduction of the sulphides in perles, and I have reason to believe that the sulphide remains unoxidised in the perles for indefinite periods. I have lately, however, seen a sample of so-called "perles of sulphide calcium," which on examination were found to contain no sulphide at all. The best way of all, no doubt, to prescribe sulphides, is to send the patient, if possible, to a so-called sulphur spring, where he may drink the water impregnated with hydrogen sulphide, and holding other sulphides in solution before oxidation has had time to occur. Then one may be sure that the medicine prescribed is actually being taken.

Having during the autumn of last year paid a visit to the sulphur springs of the Pyrenees, I have thought that possibly the information thus acquired might prove serviceable to others besides myself.

There are many sulphur springs in the Pyrenees, but the best known are those situated in the western half, in the departments of the Basses Pyrenées, Hautes Pyrenées, and Haute Garonne. Going from west to east, we have Eaux Chaudes, Eaux Bonnes, Cauterets, St. Sauveur, Barèges, Bagnères de Luchon, and Bagnères de Bigorre. Excepting at the last-named place, the prevailing waters are those containing sulphuretted hydrogen and other sulphides, and there is a strong family likeness between them all. These waters are excessively weak, and contain not more than from 0·5 to 0·2 grm. of dissolved matter in each litre of water, or from about 4½ to 2 grains in the pint—thus offering a striking contrast to the waters of Harrogate and Aix la Chapelle, which contain respectively 137 and 37 grains in each pint. The amount of free hydrogen sulphide in the Pyrenecan waters is exceedingly small, the salt which gives to them this sulphurous quality being sodium sulphide, of which there is from 2 to 5 centigrammes in each litre, or from ½ to ¼ grain in each pint. The bulk of their small quantity of solid ingredients is composed of silicates, chlorides, and organic matters. The following schedule will serve to show at a glance what are the chief ingredients of these springs.

GRAMMES IN A LITRE. (Parts in 1000.)

—	Eaux Chaudes (Le Clot).	Eaux Bonnes.	Cauterets (César).	St. Sauveur.	Barèges (L'Entrée).	Luchon (La Reine).	Bigorre (Labassère).
Sodium sulphide ...	0·0080 (?)	0·0214	0·0226	0·0218	0·0344	0·0508	0·0464
Sodium chloride ...	0·0900 (?)	0·2640	0·0178	0·0695	0·0544	0·0624	0·2058
Silicates	0·0041 (?)	0·0500	0·1114	0·0867	0·1087	0·0614	0·0555
Sodium sulphate ...	0·0234	0·0277	0·0080	0·0400	0·0169	0·0312	—
Calcium sulphate ...	0·0791	0·1644	—	—	—	0·0312	—
Organic matter	(?)	0·0480	0·0450	0·0320	0·0510	(?)	0·1450
Total solids	(?)	0·5760	0·2019	0·2500	0·2654	0·2511	0·4813
Temperature (C.) ...	36·25°	32·00°	48·00°	34·60°	40·00°	51·00°	15·00°

A typical spring has been taken as a representative of each of the localities, but these form only a very small proportion of the total number. Thus at Barèges there are upwards of a dozen springs; at Luchon there are nearly thirty; at Eaux Chaudes six; at Eaux Bonnes six; at Cauterets thirteen; and at St. Sauveur certainly two or three. There are differences in the compositions of these several waters, and the local practitioners profess to be able to select the cases which are best treated at each of them, and make the most of the milligrammes and fine shades of temperature which constitute the differences.

At Bigorre there are a great many different springs, the majority of which belong to the group of saline waters, the chief saline ingredient, however, being sulphate of lime. These should properly be classed among indifferent waters. There are a few sulphurous springs also, the chief of which is that called Labassère.

It will be noticed that the analyses make mention of organic matter found in the springs, which is generally present in considerable quantities. This organic matter collects in the reservoirs and conduits through which the water is brought on its way to the baths and drinking-fountains, and seems to be spoken of by various authors under the names of "Barégine," "Glairine," or "Sulfurine." These names would lead the unwary to suppose that this organic substance is the active principle of the water, and, indeed, we find it so spoken of in more than one monograph, and notably in the advertisement of the Barèges waters, which says:—"Cette barégine donne aux eaux de Barèges une onctuosité particulière, que est un des éléments de leur efficacité thérapeutique." The director of the bathing establishment at Barèges very kindly ordered one of the attendants to collect for me a sample of this so-called barégine, and in a very short time after the order was given I was furnished with as much as could be put in a half-pint bottle. To the naked eye it looked slimy, and was of a grey-greenish tint, with here and there portions which were nearly black. It felt like mucus, and under the microscope was found to be composed of the filaments and reproductive organs of various algæ. These algæ must be regarded as purely accidental, and are merely due to the fact that the sulphurous waters form a suitable nidus for their propagation. The growth of algæ in the water of hot sulphur springs has been noticed elsewhere than in the Pyrenees. In the fourteenth volume of the Journal of the Linnæan Society will be found an interesting paper by Mr. H. N. Moseley, F.R.S., who accompanied the *Challenger* expedition in the capacity of naturalist, "On Fresh-water Algæ obtained at the Boiling Spring at Furnas, St. Michael's, Azores, and their neighbourhood." The whole group of the Azores is pronounced to be decidedly volcanic in character, and in the largest island of the group (St. Michael's) hot springs abound in many parts, but notably at the western extremity of the island in the valley of Furnas, where are situated the boiling fountains known as the Caldeiras, which have enjoyed for a considerable period no little reputation for their curative action upon palsy, rheumatism, scrofula, and similar maladies. Mr. Moseley describes how he cut away portions of a vegetable deposit from the sides of some of the boiling springs, in situations where the heat of the water was so intense that great care was necessary not to scald the hands while collecting it. These hot waters contained an abundance of sulphuretted hydrogen. Mr. Moseley estimates the temperature of the water in which the algæ were found to have been from 149° F. to 158° F. This estimate was made by dipping the finger in the water, since unfortunately he had no thermometer with him at the time of his visit. Near the margin of the lake of Furnas are several spots where hot gas, charged with sulphuretted hydrogen, is discharged through the water, and, curiously enough, the algæ were found to grow more luxuriantly in the immediate neighbourhood of these discharges.

The alga peculiar to the Pyrenean sulphur springs has been described by Camille Montagne in the ninth volume (Botanique) of the "Annales des Sciences Naturelles," and has been named by him Leptomitus sulphurarius. It is said to grow especially in waters having a temperature between 50° F. and 100° F. It cannot exist without exposure to air, and sulphur seems also to be indispensable to its proper development, as well as an azotised substance dissolved in the water. An alga of a very similar description has been found growing in the hot water of Carlsbad, but it has been decided not to be precisely similar to that which constitutes barégine. Not only do vegetables flourish in these sulphurous waters, but animals as well, and many species of anguillula have been discovered by various observers in the waters of Barèges and other bathing resorts of the Pyrenees.

It is much to be regretted that a nonsensical and misleading name has been given to the aggregate growths which occur in these sulphur waters. There is no evidence whatever that they have any part in the therapeutic value of the waters, and it is very undesirable that a word should be retained which, in our present state of knowledge, not only savours of quackery, but is undoubtedly used for quackish purposes. Another regrettable fact is the part which limited companies are beginning to play in the management of mineral springs. It has been discovered that a spring of water, if it be sufficiently puffed, is a surer and more valuable source of income than a gold mine, and the statements put forward in advertisements are very often absolutely unwarrantable. It is desirable that the profession on the Continent, and especially in France, should unite for the purpose of restraining the statements of those who have merely a money interest in mineral springs, for it will become exceedingly difficult to prescribe this or that water if, by so doing, one should seem to countenance the unwarrantable assertions which are made concerning them. It would be satisfactory if such rash assertions were made only by the trading companies, but this, unfortunately, is not the case, for many of the medical monographs appear to show a very undue amount of local bias, and to lend a too ready credence to startling therapeutic theories. It would be a great boon if the examination of the mineral springs of Europe could be made by an international commission, which should be entirely without interest in the popularity or earnings of any particular spring.

Looking once more to the nature of the waters, we see that there is only one ingredient—the sodium sulphide—which can fairly be credited with any therapeutic value, and if catalogued in the order of their sulphide strength they would read thus—Luchon, Labassère (Bigorre), Barèges, Cauterets, St. Sauveur, Eaux Bonnes, Eaux Chaudes. The amount of sulphides contained even in the strongest of them is but small—so small as to call forth the remark from Braun ("Curative Effects of Baths and Waters," p. 419, Weber's translation) that "only a few of them contain an amount which admits the possibility of the effect of sulphuretted hydrogen." The writer can see no reason for this opinion; for there is no more difficulty in believing in the therapeutic effect to be derived from a tenth or a quarter of a grain of sodium sulphide than in that which is known to result from the thirtieth of a grain of phosphorus or a twelfth of arsenious acid. The chief use of sulphur water, according to Braun, is for treating "stasis of the portal system," and conditions which are secondary thereto, and he seems to have no knowledge of their very great utility in combating the various manifestations of a scrofulous diathesis. It is equally remarkable that Birch-Hirschfeld, in his treatise on Scrofulosis in Ziemssen's Encyclopædia, makes no mention of the sulphides in the sections devoted to treatment.

(To be concluded.)

ON THE TREATMENT OF CONGENITAL TALIPES EQUINO-VARUS AFTER THE PERIOD OF INFANCY.

BY HENRY F. BAKER, F.R.C.S. EDIN.,
LATE HOUSE-SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

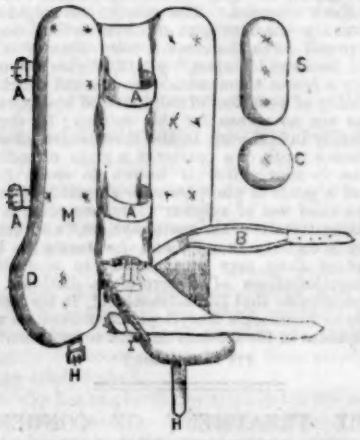
THE treatment of congenital talipes equino-varus, after the period of infancy, may be conveniently divided into three parts—1st. The cure of the simple infantile varus occasioned only by the contraction of the tibialis posticus, flexor longus digitorum, and the tibialis anticus. 2nd. The cure of the remaining acquired varus, caused by the contraction of the abductor pollicis, plantar fascia, and the various ligaments connected with the misshapen bones of the tarsus. 3rd. The equinus caused by the contracted tendo Achillis.

With regard to the treatment of the first part, after the successful division of the tendons mentioned above, the best

instrument is, undoubtedly, a well-padded outside splint, to which the foot is gradually drawn by means of an ordinary bandage. When as great a part as possible of the varus has been removed by these simple means, the second part will still remain; and this is, of all, the most difficult to successfully overcome, even after the complete division of the abductor pollicis and the plantar fascia, chiefly on account of the great danger of producing sloughs by such an amount of pressure as will suffice to correct the deformity. The common Scarpa's shoe, useful as it is in some forms of talipes, is quite useless here. Scarpa, indeed, invented a special instrument for the purpose, but it is almost impossible to use it without causing sloughs. In more modern times, also, many very clever instruments have been devised with the same object in view, but in practice they have proved only partially successful.

For the efficient application of force in overcoming the resistance formed by the contracted tissues on the concave aspect of the deformed tarsus, the fulcrum must, I believe, be placed on some part of its convexity, and as near as possible to its most projecting point; the internal tubercle of the os calcis being made a fixed point, and the power being represented by the tension of a strap placed round the ball of the great toe. The problem therefore to be solved is—How can the fulcrum be applied in this position for the required length of time without causing sloughs?—and it appears to me that the only method is by rendering it a *movable* one. In other words, the pad which forms the fulcrum, instead of being a fixed part of the splint, should be unconnected with it, and thus made capable of being shifted from point to point along the outer edge of the tarsus, as circumstances require. The instrument which I have devised for carrying this into execution is figured below (Fig. 1). The figure re-

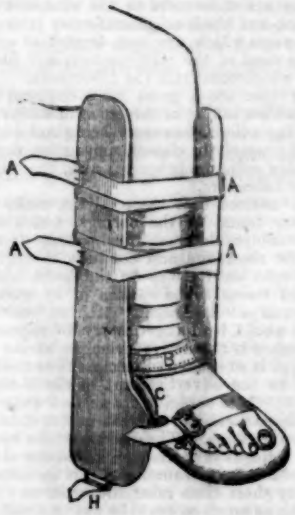
FIG. 1.



presents the instrument open, and it will be seen to consist of a back-splint, connected with a foot-piece by means of a cog-wheel, K, at the heel, and having hinged to it two wings which extend well below the foot-piece, and have a buckle and strap, H, attached to their lower ends. A A are two webbing straps introduced through slots, to fix the leg firmly. B is a leather ankle-strap, wide and padded in the centre, to fix the heel immovably in its position; it is attached to a buckle at the back. D is a plate attached to the external wing; and C is the pad, or movable fulcrum, to be placed beneath it, and to press on the projection at the outer side of the foot. I is a rigid bar for carrying the toe-strap.

Fig. 2 represents the instrument in action. The leg is firmly held to the back-splint by the straps A A. The heel is kept in place by strap B, and the movable pad C is adjusted. The wings are brought together, and firmly fixed by the further action of the straps A A, and strap H; and the toe-strap is then tightened, and the cog-wheel, K, screwed up. By simply loosening the toe-strap, the pressure is at once relieved if this should be found necessary, as is frequently the case at night, when the foot becomes hot; and in a day or two, the wings being thrown back, *but the foot not being disturbed*, the pad, C, may be slightly shifted.

FIG. 2.



In some cases it will be found convenient to introduce the rectangular pad, S (Fig. 1), within the external wing at M, and so place the fulcrum on the outside of the leg; but this materially diminishes the power of the instrument.

This splint is equally well adapted for carrying out the third stage of the treatment—viz., correcting the equinus after the division of the tendo Achillis; and in some cases it can be used for this purpose before the second period of the cure of the varus is quite completed.

A varus splint, constructed in some respects like the one described, was devised by the late Mr. Tamplin, and has been in use at the Royal Orthopædic Hospital for many years in the treatment of *infantile* varus, for which it is well adapted. It fails, however, altogether in the treatment of those more difficult cases of acquired tarsal deformity which are the subject of the present communication. The special points in which the splint here suggested differs from Mr. Tamplin's are—(1) the addition of an inner wing; (2) the projection of both wings well below the foot-plate, with connecting strap; (3) the rigid toe-bar attached to the sole-plate; (4) the leather padded ankle-strap; and (5)—the most important of all—the movable pad which forms the fulcrum.

If it should be thought advisable to combine the use of a spring or elastic pressure, this can be at once done by placing a steel spring in the position of the rigid toe-bar, or an elastic toe-strap in the place of the one made of common webbing. Neither of these alterations, however, would be, in my opinion, an improvement.

I may mention that the instrument has been made for me by Mr. Gumpel, of Leicester-square; and I take this opportunity of acknowledging the very efficient manner in which my suggestions have been carried out.

Hanover-square.

BEQUESTS &C. TO MEDICAL CHARITIES.—The London Fever Hospital has received £1000 anonymously. The Stewart Institution for Imbecile Children, Palmerstown, Dublin, has received £300 under the will of Mrs. M. Roe. The Salop Infirmary, Shrewsbury, has received £100 under the will of Mr. Robert Hughes, of Newport, Salop. The Grocers' Company have given a seventh £50 to the general funds of the Victoria Hospital for Children at Chelsea, and £25 towards laying out and ornamenting the garden. The Goldsmiths' Company have given £200 to the Royal London Ophthalmic Hospital, and £100 to the General Lying-in Hospital, York-road, Lambeth.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

PYREXIA WITH HYPERÆSTHESIA; RAPID AND EXTREME MUSCULAR WASTING; MOTOR PARALYSIS OF ARMS; PARTIAL RECOVERY.

(Under the care of Dr. STURGES.)

ON the 4th January of the present year an abstract under the above heading appeared in the "Mirror." At that time the issue was still doubtful. We supply now what was then lacking to complete the case.

The boy recovered. His weight on the 19th December was four stone. From this it increased gradually, and on the 18th March he had gained one stone five pounds. Meanwhile power in his arms returned, although free movement of the right arm was still impaired, owing to pain and stiffness in the shoulder-joint. The gain in weight was irregular, its greatest rate being three pounds in seven days; and recovery was somewhat delayed by a superficial abscess in the back, which, however, after being opened, gave little trouble. At no time, notwithstanding his extreme leanness and long confinement to bed, was there any threatening of bedsore, and the difficulty of micturition early disappeared. His weight at the end of March was 5 st. 5 lb., and his height 4 ft. 10 in. He was discharged well, having been in hospital nearly six months; eleven weeks of which were devoted to the progress of the affection, and the remainder to gradual recovery.

Remarks by Dr. STURGES.—The case is thus complete, and although, from one point of view, it will be regarded as inconclusive because not fatal, it must be accepted as showing that "acute" muscular wasting, so extreme as to reduce the gastrocnemii and biceps muscles to mere bands, uncover the ribs and shoulder-blades, and reduce the weight of a healthy boy 4 ft. 9 in. in height to 4 st. in a period of seventy-seven days, is not necessarily a fatal or a permanent affection. Instances of this kind, as they never become the property of the pathologist, are apt to be overlooked, or, when not overlooked, to be set aside on the ground of faulty observation, or that the recovery was only partial and temporary.

In a ruder age the fact of progressive muscular atrophy recovering would be attributed to some influence of drugs. Even at present nothing better could have been wished for in the fortunes of some new medicinal agent than to have been employed at such a juncture. We are able in the present instance to dismiss all such considerations, and to speak of the recovery as spontaneous.

It will be noticed that the case resembles some examples of infantile paralysis in the initial pyrexia, pain on movement, cutaneous hyperæsthesia, abolition of reflex excitability, and limited paralysis. And as the infantile affection is recovered from, even after much limb-wasting, so it would appear is the post infantile. But the present instance requires us to admit further that, even beyond the period of childhood, a *general* muscular wasting, together with limited paralysis, may be associated with changes in the cord which are not destructive, and the precise nature of which, on that very account, cannot be directly known. And we have to admit besides, upon the same evidence, that in youth as well as in childhood such common causes as damp and cold and exposure are competent to affect the nerve-centres, no less than the mucous or the serous membranes, apart from any ascertainable taint or inheritance. The local manifestations of disease due to extraneous causes have not, in fact, the precise limits it is the practice to assign to them. It is possible to "take cold" in the spinal cord as it is in the peripheral nerves, in the stomach, the intestines, or the kidneys. The precise meaning of the phrase "take cold," as expressing a material change, grows less and less distinct as the organs themselves recede from our sight, and touch, and hearing. It loses, indeed, all definiteness of this sort long before it ceases to be observed as a fact—a fact evidenced, as in the present case, by the occurrence of certain symptoms as a direct consequence of exposure. Thus, after the largest allowance has been made for syphilis, and scrofula, and tubercle, it is only by assuming that the few causes of disease commonly alleged act in combination with agencies the nature of which is altogether unknown, that the great variety of effects actually observed can be at all accounted for.

Lastly, although we cannot claim to have cured this boy with drugs or batteries, yet, remembering the conspicuous place which would have been assigned to these, supposing they had been employed, we shall by no means decline whatever credit may be thought due to us for having deliberately set them aside.

ST. MARY'S HOSPITAL.

HÆMORRHAGE FROM THE PREGNANT UTERUS, AND SUBSEQUENT MISCARRIAGE FROM SUDDEN EFFORT.

(Under the care of Dr. WILTSHIRE.)

ON Dec. 3rd, 1878, E. T——, aged forty-two, married twenty years, the mother of eight children, and pregnant five months, complained of pain in the abdomen, a red discharge, and great frequency of micturition. She looked thin and careworn. She stated that a fortnight before she had sudden loss of blood from the womb; the flow was rather free for two days, and was followed by brownish watery and mattery discharge, which continued. The flow was brought on in the first instance by dragging heavy boxes.

On examination of the abdomen the womb, centrally placed, was found to be unusually hard, and about the size of a five months' pregnancy. Per vaginam the cervix uteri was considerably dilated, the os being the size of half-a-crown. The fœtal head could easily be felt, covered by the amnionic sac, but there appeared to be no liquor amnii. There was no placental tissue to be felt in the lower zone of the uterus. There were occasional "labour pains." The patient was advised to return home at once, and make arrangements for her delivery.

On Dec. 20th the patient returned to the hospital, and stated that she miscarried after her return home on the 3rd, of a dead female child ten and a half inches long. No water escaped. She had had a good miscarriage, but still had a reddish discharge and felt weak. She was ordered to take a mixture containing ergot and iron, three times a day.

Remarks by Dr. WILTSHIRE.—This was a case of accidental hæmorrhage induced by muscular efforts, the relations between the placenta and the uterine wall having, doubtless, been disturbed thereby. The delay which took place between the escape of blood and the occurrence of expulsive pains is probably explicable on the supposition that the accident happened at a time which corresponded with a menstrual interval, active contraction of the uterus expelling the fœtus being deferred until a period came round which corresponded with a menstrual epoch, at which time the uterus was more prone to respond to artificial stimulation than any other, inasmuch as this organ normally pulsates, as it were, at monthly intervals.

GLASGOW ROYAL INFIRMARY.

APHASIA; ATHEROMA OF VESSELS AT BASE OF BRAIN; THROMBUS OF LEFT SYLVIAN ARTERY; RED SOFTENING OF THIRD LEFT FRONTAL CONVOLUTION.

(Under the care of Dr. CHARTERIS.)

FOR the following interesting notes we are indebted to Mr. Alexander Moffat, clinical clerk.

On the 8th of January last a man, aged twenty-three, was admitted into the infirmary. His previous history, as afterwards ascertained from his medical attendant and friends, showed that he had occupied a superior position in society, but latterly had become dissipated in his habits, being at the time of his admission under treatment for syphilis. He had been specially addicted to venereal excesses and a free indulgence in wine, but never in ardent spirits. A few days previous to his entrance into the infirmary he complained of violent headache, and during the

night, it was stated, he became violent, attempting to strike every one coming near him, yet unable or unwilling to utter any articulate sounds.

When first seen by Dr. Charteris on the morning of Jan. 9th, his face was flushed, his eyes were staring, with the pupils widely dilated. He seemed conscious of his surroundings, and nodded replies to questions. On the supposition that possibly he was able to express his ideas by words, a slate and pencil were handed to him, but the latter fell from his hand and the former was pushed away afterwards with a feeling of disgust. When asked to put out his tongue, he opened his mouth and protruded it a little way beyond his teeth. There was no paralysis, as he could stand without assistance, and was able to swallow milk and beef-tea without difficulty. Brandy and other stimulants were refused.

From the time of his admission until his death, fourteen days afterwards, his symptoms varied little, the chief being extreme restlessness, a constant desire to kick the bedclothes off, not only from his person, but on to the floor. This restlessness rendered it impossible to take the temperature with any accuracy. His face used to brighten up at the periodical morning visit, and he seemed to long to say or write something when asked questions; but he was unable to do either. In the last twenty-four hours of his existence he sank into a comatose state, and died peacefully.

His case was variously interpreted as acute mania, cerebral meningitis, or sheer obstinacy, when first seen by the clinical class; but later on there was no doubt that the case was one of complete aphasia (using this term in its widest sense), with implication of the parts supposed to be concerned in the faculty of speech. This opinion was strikingly verified at the necropsy, as the subjoined pathological report shows.

The body was emaciated, and exhibited on the surface of the skin peculiar blotches of a red tint, not due to hypostasis. In the external table of the right parietal bone was a thickened nodule of a dense bone, about the size of half an almond. The dura mater was healthy. The arteries at the base of the brain were here and there thickened and atheromatous. There was in the left Sylvian artery a friable adherent thrombus, half an inch long, of a dark-red colour, with a trace of white here and there, and completely filling the lumen of the vessel. In both vertebral arteries similar masses of thrombus were found. On the under-surface of the right tempero-sphenoidal lobe there was a little extravasated blood in the subarachnoid space. Both lateral ventricles were rather distended with clear serum. The grey matter of the left island of Reil and its vicinity, including the posterior part of the lower left frontal convolution, was in a state of red softening. The rest of the brain-tissue was healthy. None of the other organs were examined owing to the objections of friends.

HÔPITAL TENON, PARIS.

CASE OF TYPHOID FEVER; RAPID DEATH, DUE TO CARDIAC THROMBOSIS; NECROPSY.

(Under the care of Dr. STRAUS.)

For the notes of this interesting case we are indebted to M. Leduc, house-physician.

Lucie N——, nineteen years of age, a dressmaker, was aken ill and compelled to stay in bed on the 25th of February last.

On the 3rd March she was admitted to Colin ward (bed No. 22). She had never been ill previously, and had been in Paris sixteen months. She was therefore within the limit of time commonly considered necessary to become acclimatised, and would thus naturally be more exposed to contract typhoid. Her courses had ceased for six months, but they suddenly appeared three weeks before her admission. From that moment she had not felt well; complained of general lassitude, headache, and had diarrhœa, which lasted for three or four days. She had a slight cough, and her expectoration was faintly tinged with blood.

On the day of admission nothing abnormal was found in either lung. The first heart-sound had a slight tendency to a souffle towards the base. Upon the following day the skin was hot, the tongue red, and she complained of headache, fatigue, and giddiness when she sat up in bed. During the course of the day she had slight bleeding from the nose. The abdomen was not painful; there was no diarrhœa. She was restless at night and could not sleep. Had pain at the back of the head.

On the 5th she was in the same state. There was slight tympanites, but no pain. There was gurgling in right iliac fossa. Morning temperature 39·5°; evening 40·2° C. A few spots made their appearance, but were not very characteristic. Cough continued. A dose of seidlitz was given to relieve the constipation. Next day she vomited bile. The abdomen was swollen; she had diarrhœa. The spots had come out better, and assumed their characteristic aspect.

On the 7th sibilant râles were heard at the bases of both lungs. The face had become typhoid; the patient, however, could answer correctly with but little hesitation; vomiting persisted, as also the diarrhœa. The abdomen and anterior portion of the thorax were covered with the lenticular spots. There was epistaxis. Temperature: morning 39·6°; evening 40° C.

On the 8th she vomited everything she took, as well as a great quantity of bile. The eruption of lenticular spots was very abundant. Temperature: morning 39·5°; evening 39·2°.

On the 9th, the urine contained a great amount of blood. There was very little blood in the stools. The patient had become very pale.

On the following morning the sister said that the patient had had a fit of suffocation during the night. She became black in the face, and continued so for about one minute. At 10 A.M. she had a second fit; and at 1 P.M. she had a third; and after crying out she fell back suddenly and died.

Necropsy, twenty-four hours after death.—Slight ascites; 200 to 300 grammes of fluid were withdrawn. About half an ordinary tumblerful of fluid was found in the pericardium. The stomach was considerably dilated and filled with fluid. The intestines were highly injected through a considerable length. Peyer's patches and the closed follicles of the last four or five feet were infiltrated. The spleen weighed 420 grammes, and was easily torn. Liver congested and softened. Kidneys nearly twice their normal size; the capsules were easily taken off; the cortical substance was the principal seat of the congestion. The cavities of the heart were filled with clots. In the left auricle and the left ventricle the clots were partly discoloured and fibrinous. The remainder of the clots were recent. The muscular fibres were pale. The lungs were entirely congested; a degenerate ganglion was found in the left inferior lobe. On the right side, and at the apex, two or three tuberculous nodules were to be found, surrounded by a zone of sclerous tissue containing tubercles. The brain was healthy, but the ventricular cavities were distended; the pia mater was strongly adherent. Mesenteric ganglions enlarged and congested.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

MEMBRANOUS CROUP AND DIPHTHERIA.

(Continued from p. 596.)

DR. SEMPLE thought it right to draw attention to the circumstances under which the Committee (of which he was a member) had been called upon to report. Some years ago he read a paper in that room stating opinions which he had long cherished, in spite of vehement opposition. These opinions were, that the word "croup" had no special significance; that under it were confounded three different diseases:—1. There was the disease characterised by formation of false membrane on the fauces and larynx, which had been very properly called by Bretonneau diphtheria. The term "diphtheria," signifying a disease accompanied by a false membrane or pellicle, was as apt a term as small-pox was for the exanthem it denoted; and it was no more strange to have some cases of diphtheria without the membrane than to have small-pox without the eruption. 2. "Croup" had also been applied to cases of simple inflammation of the larynx and trachea—ordinary infantile laryngitis—in which

no false membrane was present. Of such cases, during an experience of many years among the poorer classes, he had met with several examples, some of them fatal, but in none had he found membranous exudation after death. 3. Another disorder was the spasmodic non-inflammatory affection, laryngismus stridulus. His assertion that these three distinct forms of disease had been confounded under the head of croup would be borne out by reference to medical literature, and he would instance Copland's Dictionary as giving one of the best descriptions of "croup" he knew, but where this confusion existed. His attention was first drawn to the subject in translating Bretonneau's memoirs. There he found "croup" always used to denote a disease accompanied by false membrane. He questioned Dr. Guenеau de Mussy upon the subject, and learnt from him that in England "laryngismus stridulus" was also included under croup; but in France it was clearly differentiated from true croup. So that by degrees he was led to the conclusion that "croup" was only a clinical term. Whilst engaged in the work of translating Bretonneau, he met with some cases of diphtheria which occurred at Bagshot during an epidemic there, and he exhibited some of the morbid specimens before that Society, then under the presidency of Sir Thomas Watson. After that time the disease did not appear for some years, except in sporadic cases which he now and then saw in his dispensary practice, where he found false membranes in the air-passages after death. He again brought the subject before the Society, pointing out the occurrence of sporadic cases of true diphtheria—i.e., of true croup,—but his view of their specific nature was contested. Since then, however, Sir W. Jenner, Dr. Johnson, Sir John Cormack, Dr. Bristowe, and Dr. Mackenzie, among others, had published opinions expressing their belief in the diphtheritic nature of true croup. He was not foolish enough to think that croup was the sole manifestation of diphtheria, but that membranous croup is the same affection as the laryngo-tracheal variety of diphtheria. It was to determine this very question that the committee were appointed, and their report, which embodied most laborious and assiduous work, was before the Society. He wished to be understood that he was speaking only for himself in this matter; he did not wish to compromise any of his colleagues on the committee. But he would say that in nineteen out of twenty cases where a negative answer had been sent to the question whether it was believed that croup and diphtheria were identical, the answers were based on mere assertions, and were unsupported by facts. So imperfect was the knowledge thus obtained that the committee sought for information from various children's hospitals, the result being the valuable tables furnished by Drs. Dickinson, Fagge, and Gee. The conclusion rationally drawn from this inquiry was, that in all but a very small percentage of cases membranous laryngitis was due to the diphtheritic poison; in a very few cold or traumatism was thought to be an excitant of it. For his own part he felt that the conclusions at which he had previously arrived had been strengthened by that report. It might be asked—*cui bono?* He would reply, it was of much gain, for hitherto the literature of croup and diphtheria had been a mass of confusion; but the recognition of the diphtheritic nature of croup would alter this, and tend to simplify our nosography. Dr. Semple then alluded to the simple and generally harmless character of non-membranous laryngitis contrasted with the fatal tendency of the membranous form, in which tracheotomy alone afforded a chance of recovery, the object of the operation being, in that case, not only to admit air into the lungs, but to clear out the membrane. A distinguished surgeon had told him that his cases of tracheotomy for "croup" were successful, those for diphtheria unsuccessful; the fact being, that in the former he probably had to deal with simple laryngitis. He held then that the question was not simply one of terminology; it involved a great question of nosology, and, in the second place, was of great importance as indicating the correct lines of treatment to be pursued.

Dr. LOWNDS (of Egham) said that Valleix referred to some rare cases of "diphtheria," accompanied by laryngeal membrane, being successfully treated with emetics; and when the insanitary state of the Hôpital des Enfants Malades in Paris twenty years ago was born in mind, there need be no loss to explain why cases so treated seldom recovered, for no one would think of treating true diphtheria by such depressing remedies. He had frequently cured dysentery in India by large doses of ipecacuan, which seemed to cause a profuse secretion from the mucous membrane; and might not a similar effect be produced in the respiratory tract by the same remedy in diphtheria or croup? In India he had seen many cases called croup, which became almost urgent enough for tracheotomy, but which yielded to antimonial emetics. But in the sixteen years of his service in that country he had met with only two cases of diphtheria. He could not agree with Mr. Hutchinson that there was no premonitory fever in diphtheria. In many cases shivering was the first symptom of its existence. He had no doubt of the occurrence of sporadic cases of diphtheria.

Sir WM. GULL said that it was interesting to notice how varied the discussion had been. The question before the meeting was not so much the nature of diphtheria as the relation between that disease and membranous laryngitis. He did not think the pathology of the larynx could be settled with our present knowledge, although the profession was greatly indebted to Dr. Semple, Sir W. Jenner, and Dr. Johnson for showing how widespread was the influence of diphtheria in causing membranous inflammation of the larynx. But he could not agree that this embraced the whole question, and he joined with Dr. Wilks in his statement that the same pathological products may have various causes. The committee had attributed a large number of cases to zymotic influence. Twenty years ago, in a report he drew up at the request of Mr. Simon for the Privy Council, he (Sir W. Gull) had drawn the distinction between cases which were diphtheritic and those which were due to diphtheria. He believed with Mr. Hutchinson that in many cases the change is at first a local affection, propagating itself by contagion from part to part, like erysipelas. From this point of view the sporadic occurrence of the disease was explained. He believed that there was every degree of affection. Still he thought that in the child's larynx there is a special proneness to membranous inflammation. The epithelial lining of the infantile larynx was more of the pavement character than that of the adult and was devoid of cilia, and this was one difference which might account for the greater liability to membranous inflammation. It was quite true that membranous inflammation limited to the larynx was less contagious than the pharyngeal form. As to the question of diagnosis between idiopathic and specific membranous inflammation of the larynx, he would say that in a young child under two years of age it was most likely to be idiopathic, and to require treatment of a simpler kind than an older child, especially if in the latter case the fauces were affected. As to the fact to which Dr. Fagge drew attention, that there may be a membrane on the pharynx not due to diphtheria, he would point out the occurrence of numerous forms of epiphytes producing appearances like those of membranous exudation. It had for many years past been the practice to say that all cases of plastic (diphtheritic) inflammation should be treated with iron. He, however, now ventured to declare publicly, what he had long stated in private, that in many such cases mercurials given at the same time, as wine, &c., to support the nervous system, were preferable to iron. From an experience of several cases—three in particular—he was sure that the old discarded plan of giving calomel to alter the character of the inflammation was the correct one. It may be that the cases which do well on this plan are idiopathic; it may be that they are diphtheritic; although, for his part, he thought Mr. Hutchinson nearer the truth in grouping them together as varieties of one form of local contagious inflammation than in separating them. Whatever the view on this point, it is clear that in practice we must be prepared to pursue the old method of altering the character of the inflammation. He would not venture on the mercurial treatment if the glands were much enlarged, and the constitutional depression great, but he believed this stage might sometimes be anticipated. He spoke strongly on the matter, for three-fifths of his family were victims to diphtheria, and he could not think the question so completely decided as those who held the diphtheritic origin of all membranous laryngitis would have us believe. The question was not categorically settled yet, and he hoped it would still remain open.

Dr. POORE said there was one point which clearly came out in the report—viz., the extreme rarity of membranous croup. When a student he gleaned the impression that membranous croup was a frequent malady; thus Dr. Aitken, writing in 1863, attributed eight per cent. of the total number of deaths of children to this disease. But, although he had since then had considerable opportunities of witnessing the diseases of children, he had never yet seen a

case of membranous croup. This was an important fact, and he had ceased to bewail his fate since he had read this report; for there he found that a committee of seven gentlemen attached to various general hospitals, to children's hospitals, and to hospitals for throat diseases, after great and assiduous painstaking, had only been able to collect forty-nine cases which could be in any way regarded as primary membranous croup, but in half of them data were wanting to substantiate this, and the remainder hardly came under the head of croup proper. When to this were added the facts that Dr. Julius Pollock, in his experience at the Foundling Hospital, had never seen a case of membranous croup, that Cheyne had only seen four cases, that Albers and Jurine based their prize essays on a very small number of cases, it seemed as if the disease, as a primary affection, was very rare indeed. This very great rarity might be due to increasing knowledge of diphtheria. For in several cases there was no doubt that the presence of membrane in the larynx was inferred rather than demonstrated; and he had seen lately at least two cases of catarrhal croup in which tracheotomy was necessary, and a third which died suddenly, and in which nothing but a mass of viscid mucus was found in the larynx. It may have been thought that signs of considerable obstruction in the larynx and the expectoration of small plates of "membrane," indicated false membrane in the air-passage, but some of the appearances might be due to the drying and coagulation of mucus in simple laryngeal catarrh. He concluded by briefly adverting to a case which came under his care a few days ago. A night-watchman, twenty-six years of age, at work on the 18th March, was attacked on the 19th with hæmoptysis. He kept to his bed, and a week later expectorated much false membrane. He came to the throat department of University College Hospital on April 2nd, bringing with him a specimen of the expectorated membrane (which Dr. Poore exhibited). The patient himself attributed the attack to exposure to the east wind then prevailing, and said he had had a similar attack at Christmas. There was no evidence of diphtheria in the case, and the source of origin of the membrane was a matter of considerable doubt.

On the motion of Dr. Dickinson the debate was adjourned until the next meeting.

MEDICAL SOCIETY OF LONDON.

Arsenical Wall-paper Poisoning.

AT the meeting on April 7th, Dr. Cockle, President, in the chair, after notes of cases of Eczema Squamosum treated with linseed-meal baths had been read by Mr. Benton, a paper was read by Mr. JABEZ HOGG upon "Arsenical Conjunctivitis and Arsenical Wall-paper Poisoning," stating that his object was to draw attention to the danger arising from the use of arsenic in so many of our domestic manufactures. After referring to the cases of Drs. Hind and Halley, in whom severe symptoms were due to arsenical wall-papers, a cause long unsuspected by them or their friends, the author drew attention to two points in connexion with this subject; (1) as to whether the symptoms produced by the dust thrown off from the walls differs from those observed in the administration of arsenic as a medicine; and (2) whether the greater amount of activity and virulency observed in wall-paper poisoning is due to the poison being taken as a finely divided dust or as an evolved gas. The symptoms of arsenical conjunctivitis seemed to indicate a special form of disease produced by the mechanical irritation of the dust, leading to purulent discharge and ulceration of the mucous membrane; varying degrees of symptomatic fever attend the attack, the digestion is deranged, appetite impaired, bowels irritable, tongue white, furred and sore; the mouth dry and throat sore. He dwelt especially on the local manifestations, and then proceeded to quote several well-marked instances that had come under his notice; reading an interesting account by Professor Osborne Reynolds, of Manchester, of the symptoms in his own case. The effects upon workmen engaged in the various manufacture of papers, calicos, &c., were then shown; and a description given of the various kinds of arsenical pigments employed, which, as they become dry, are easily detached, and float about in the air of the room. It was important to know whether the ill effects produced were due to dust or to arseniuretted hydrogen. Three important points had been arrived at: (1) that dust is separated in sufficient quantities to give rise to a peculiar train of symptoms; (2) that under certain conditions arseniuretted hydrogen is evolved by decomposition, and may naturally add to the virulence of the poison; (3) that at all events the dangers to the public health from the use of arsenical pigments are real and urgent. Wall-paper could be made without arsenic; and he considered that the evils connected with a nefarious manufacture of those made with poisonous compounds called for the entire prohibition of the sale of the same.—Dr. JAGIELSKI said that in arsenical poisoning the whole mucous tract is inflamed. The conjunctivitis of course attracts attention, but there is often diarrhœa, and then the true cause is likely to be overlooked.—Dr. ROUTH quoted a case where he detected symptoms which he could not relieve until an arsenical wall-paper in the patient's room had been removed. Glazing prevents any ill effects from arsenical paper. Silk-stockings, carpets, &c., and all the bright colours in textile fabrics due to arsenic may be sources of this form of poisoning.—Dr. BARTLETT, F.C.S., gave some facts as to the occurrence of arsenic in little-suspected articles, and urged preventive legislation.—Mr. M. MORRIS referred to his own case, where violent sneezing and asthmatic symptoms following languor were produced in himself and another member of the household from dwelling in rooms newly painted.—Dr. BROOKFIELD had similarly suffered; and Mr. Morris having proposed that a committee should be formed to organise a deputation to the Government, the suggestion was unanimously agreed to.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on April 2nd (Dr. W. S. Playfair, President, in the chair), the following were elected fellows:—Sir Joseph Fayrer, Drs. George C. McKeogh, George E. Moore, R. R. Stilwell, Messrs. J. Knowsley Thornton, Alban Doran, Charles L. Eversbed, T. W. H. Garstang, E. W. Tait, and William B. Williams.

Dr. GODSON showed a dissection of the Conjoined Twins which he had exhibited in July last. The distribution of the viscera was very remarkable.—Dr. Godson also showed a set of instruments, comprising speculum forceps, puncturing lancets, caustic-holder, uterine sound, and Playfair's probe, all of which were contained within the ordinary cylindrical speculum, and could be carried in the pocket. This convenient case of instruments was manufactured for him by Messrs. Arnold and Son.

Dr. BARNES showed, for Dr. Marshall, of Mortlake, a new Midwifery Forceps of his invention, the blades of which were attached to the handles in sockets, so that they rotated in such a manner as to adapt themselves to the shape of the head. Thus a firmer grasp was afforded, and indentation avoided.—Remarks were made by Drs. Aveling, Murray, Williams, Routh, Cory, and Marshall.

Dr. CHAMBERS presented two Ovaries which he had removed a week since on account of double ovarian congenital inguinal hernia. He suggested that these should be examined and reported upon at the next meeting, when he would bring forward full particulars of the case.—Drs. Galabin and John Williams were appointed to examine them.

Dr. ROUTH contributed the notes of a case of Tubal Gestation. The patient, aged twenty-two, was admitted into the Samaritan Hospital on January 31st, 1878, complaining of pain in the lower abdomen, which had commenced a month previously. The catamenia were regular and profuse, the last period terminating abruptly a few days before admission. On examination an irregular rounded swelling was found occupying the left iliac and hypogastric regions, dull on percussion. Per vaginam a large mass, about the size of a cocoa-nut, filled the entire pelvis, the os uteri being pushed forwards and upwards, and reached with difficulty. The tumour appeared to contain fluid, and large pulsating vessels surrounded it. It was at first believed to be a hæmatocele, but, later, pregnancy was suspected from the discolouration of the genitalia. On February 18th it was tapped per rectum by the aspirator, and a pint of serous

fluid was drawn off. This was followed by troublesome hæmorrhage, to arrest which a solution of iron was injected, and subsequently withdrawn by the aspirator. No bad symptoms occurred till the 21st, when rigors set in, followed by feverish excitement, and the temperature ran up to 104° F. On examination the tumour, which had been emptied, was found to be again distended with fluid. A membrane, which proved to be decidua, had passed from the vagina. After consultation surgical interference was negatived. Next day she died. At the autopsy a large thin clot concealed the viscera. On removing this the peritoneal cavity was found to contain a pint of fluid blood, and there were masses of clot in the cellular tissue of the iliac fossæ. A tumour, about the size of a cocoa-nut, lay behind the uterus, extending to the right into the iliac fossa, displacing the cæcum, and backwards against the fifth lumbar vertebra. It was soft, and its surface very vascular. It could be seen even *in situ* to be a dilatation of the right Fallopian tube. On examining the back of the tumour, a small aperture was discovered. On opening the tumour it was found to contain one ounce of blood, a placenta, and a fœtus of about three months' development. The umbilical cord was about four inches long, and attached to the front of the cavity. The remainder of the Fallopian tube was coiled behind the uterus, in Douglas's space, under the left tube. No trace of the opening made through the rectum with the aspirator could be detected. The author then gave the details of a large number of published cases of extra-uterine fœtation, from which he drew the following conclusions:—That a discharge of blood resembling the catamenia frequently occurs, but that it varies in intensity, time, and quality; that the cases of tubal pregnancy, if diagnosed early, should not be left to nature, but should be treated by one of two proceedings—either simply tapped by the aspirator; or tapped, and subsequently a solution of morphia injected into the amnion.—The PRESIDENT inquired why the author had limited his discussion of possible methods of treatment to puncture and injection of morphia? Dr. Routh could not be ignorant of Dr. Thomas's well-known successful case in which a similar tumour was opened from the vagina by the galvano-caustic knife, a plan of treatment which seemed to him particularly valuable in such a case, inasmuch as the cautery not only obviated any risk of hæmorrhage from division of large vessels, but the sac could be thus easily emptied of its contents, leaving the placenta *in situ*, and subsequently thoroughly drained, and washed out with antiseptics.—Mr. DORAN, who had made the post-mortem examination, exhibited the specimen which he had prepared from it, which showed beautifully the relation of parts. He remarked that the rent whence proceeded the hæmorrhage was situate on the upper and posterior aspect of the cyst, and had gastrotomy been performed on the advent of the dangerous symptoms the cyst could have been easily reached from above, and the laceration detected, the fœtus might have been removed, and the bleeding vessels secured by the cautery.—Dr. BANTOCK believed that gastrotomy offered the best hope of relief in cases of tubal pregnancy. If the fœtus happen to be in the outer part of the tube the sac might even be pediculated, and the pedicle could be ligatured or treated like that of an ovarian tumour. If near the uterine end the sac could be opened, the fœtus could be removed, and complete drainage could be effected, after securing the edges of the opening to the lips of the abdominal wound, with every probability of success.—Dr. BARNES considered the operation from below of greater value, being more accessible.—Dr. GODSON said that tapping per rectum incurred the risk of fetid gases passing from the bowel into the cyst, and he related the case of a patient upon whom he had operated for retention of menstrual fluid, owing to an imperforate hymen, in which this had occurred.—Dr. GALABIN remarked that with reference to the inference to be drawn from Dr. Routh's case as to the question of treatment, it was of interest to recall the statistics of the late Dr. Parry, who in his monograph had collected a far larger number of cases than any other author. From a review of these he drew the conclusion, that although the treatment of simple puncture might seem at first sight to be so promising and so innocuous, yet it was more dangerous than either leaving the case to nature or evacuating the cyst by a more free opening, a large majority of recorded cases having ended fatally.—Dr. ROGERS, from consideration of this and other cases, advocated gastrotomy and removing the fœtus without the placenta, putting a drainage-tube into the sac, and treating in the usual way; or if there were a pedicle and no strong adhesions, this might be ligatured, and the whole ovum removed.—Dr. CHAMBERS thought that when Dr. Routh was called to his patient, and found her collapsed, he might reasonably, after she had somewhat recovered, have entertained gastrotomy as a justifiable alternative.—Dr. ROUTH replied, and the meeting adjourned.

Reviews and Notices of Books.

Report on the Leper Asylum at Mahaica, British Guiana, for the year 1877. By JOHN D. HILLIS, F.R.C.S. Fcp. Demarara. 1878.

THIS is an official report to the Colonial Office by the district medical officer, Mahaica. On his appointment, in the beginning of March, 1877, he was ordered to give special heed to the keeping of the medical records, and to "direct particular attention to the treatment of leprosy with gurjun oil." We gather from the report that previous to Mr. Hillis's appointment the general management of the asylum rested with the superintendent, the duty of the medical officer being confined to the treatment of those inmates who became ill in the institution. This system does not appear to have worked well; the place was "evidently suffering from want of supervision, cleanliness, and discipline"; the wards were overcrowded, the register was kept in a very careless manner and was useless, and no measures seem to have been in force to prevent the inmates from "roaming about the neighbourhood (disposing of their food and clothes sometimes) to the great annoyance of the inhabitants"; the rations were issued raw, and there was great "confusion and waste consequent on 200 such people cooking their own food." On his appointment, Mr. Hillis assumed general control over everything, a new and efficient manager being appointed to carry out his orders. The defects and irregularities above noted were remedied, with the exception of the overcrowding, and considerable improvements in the general sanitary condition of the unfortunate inmates were introduced, particularly as regards occupation, clothing, and diet. Further changes have been recommended, and there seems every reason to hope that the amelioration thus energetically begun will be carried on successfully. On Jan. 1st, 1877, there were 165 male and 57 female lepers in the asylum; during the year 28 males and 11 females were admitted; 21 males and 9 females died; 2 males and 1 female were discharged by the governor, not lepers; 1 male left, able to work; 15 males went to India—we presume, coolies who returned to their native country; 5 males and 3 females absconded, and 2 males were sent to Kaaw island. These results do not afford much ground of hope for the unfortunate creatures afflicted with this disease, 1 only out of 261 having left the institution during the year able to work, and even of him it is not stated that he was cured. Truly it might be called a hospital for incurables. The mortality was lower than in the two preceding years, probably a result of the improvements already mentioned. In 1875 the proportion of deaths was 17·4; in 1876, 16·3; and in 1877, 11·5 per 1000, calculated in each year on the aggregate and not on the average number of inmates.

In an appendix Mr. Hillis gives abstracts, partly illustrated with photographs, of thirty-two cases treated with gurjun oil during the last seven months of the year. He sums up the effects of the remedy as being—a very great improvement in sixteen cases, symptoms ameliorated in eight, and one patient so far recovered as to be able to return to his family and friends. We entertain considerable doubt whether these beneficial results were due to the use of the oil, or whether they might not be fairly attributable to the very judicious measures introduced into the general manage-

ment of the institution by Mr. Hillis. The only way in which this question could be solved would be to place an equal number of cases under treatment by the oil, and by general attention to their diet combined with the use of alteratives and aperients, and to observe carefully the results in each group. The administration of the oil appears to be attended in some cases with difficulty, arising from its producing griping and purging to such an extent that it cannot be taken regularly. The cases noted by Mr. Hillis seem mostly to point to the propagation of the disease by contagion, and to justify his recommendation of strict isolation as one of the measures necessary to eradicate it. Although we differ from Mr. Hillis in his conclusion as to the therapeutic value of the oil being established by the cases he has recorded, we give him great credit for the zeal and the general sound judgment he has shown in the management of the institution, and we shall look with interest for future reports from him on this subject.

Half-hours of Blind Man's Holiday; or, Summer and Winter Sketches in Black and White. By W. W. FENN. 2 vols. Second Edition. London: Sampson Low, Marston, and Co. 1878.

THIS is a collection of some eighty tales and articles which have been contributed by the author from time to time to various serials. Were there nothing but their intrinsic merit to recommend them, the sketches would well deserve a kindly recognition, for they are above the average of magazine articles, and many are exceedingly amusing. But it is on account of the author's condition that his book will not fail to obtain a peculiarly sympathetic attention at the hands of medical readers. He is a landscape painter, who became blind some fourteen years ago, and was forced to exchange the pencil for the pen under circumstances of the saddest possible kind. In "My Own Story," which introduces the Sketches, the writer describes, with a graphic power suggestive of the artist, not so much, indeed, the troubles of his condition, for he is cheery to a degree, as the remarkable extent to which the other senses are able to compensate for the loss of sight. There is much of physiological interest in this, which will well repay perusal. We are glad to see that the author bears the strongest testimony to the good which is being done by the "British and Foreign Blind Association for Promoting the Education and Employment of the Blind." This institution, founded and maintained by the untiring energy of Dr. Armitage, employs "Braille's Dotted System," and, thanks to it, is able to issue at a very low price an enormous number of standard works in history, poetry, and fiction. It is producing elevated maps, furthering the teaching of music, and, indeed, generally doing splendid service in a noble field of work.

Naval Hygiene. By JOSEPH WILSON, M.D., Medical Director U.S. Navy. Second Edition, with coloured lithographs, &c. Philadelphia: Lindsay and Blakiston. 1879.

THIS is the second edition of a work that ought to make some of our readers, or rather writers, ashamed of themselves. The Public Health Act has existed now for seven years, and port sanitary authorities have been constituted for at least five or six years, in accordance with the provisions of that Act. The Local Government Board, it is true, have done little or nothing in the way of indicating how port work ought to be done, but there are some few of our cloth who "ought to know" something about the matter, and we notice this book chiefly in the hope that one of them will endeavour to produce something like it. Dr. Wilson's book is, however, as yet, very incomplete, and many of the pages filled with prettily-coloured sketches of botanical specimens might have been more practically occupied in detailing some of the preventable diseases that occur afloat, and how to avoid epidemics of them. The chapters on scurvy, dysentery, cholera, and plague are notably meagre; quarantine is barely referred to; and in the discussion of ventilation, Dr. Edmund's system, and the many admirable devices adopted in our Anglo-Indian troopships, and particularly in H.M.'s transport *Assistance*, are not even honoured by mention. So that in these, as in many other points, ample room remains for an improved as well as a simple work on the subject.

The Evolution of Man: A Popular Exposition of the Principal Points of Human Ontogeny and Phylogeny. From the German of ERNST HAECKEL, Professor in the University of Jena. Two vols. 8vo. London: C. Kegan Paul and Co. 1879.

ENGLISH readers will welcome this translation of a work which has long been known to them, at least by name and by the frequent references which have of late been made to it, if not in its original form. The translation has been made from the third edition of the work; it is excellently done and reads most easily, and the printers' and publishers part in it leaves nothing to desire. The mode in which the numerous illustrations have been executed deserves especial credit. The same publishers recently gave us a translation of Professor Haeckel's "History of Creation," equally well translated and printed. In that work the learned author, to use his own words, "passed lightly through the widest circle of biological phenomena, and touched only on the most interesting points." In the present work he limits his attention to the problem of Anthropogeny, in continuation, as it were, of his previous work, and endeavours to treat it so as to meet the requirements of the student and thoughtful reader. The English reader has now the opportunity of becoming familiar with this important work in its entirety—a work which claims the attention of biological students, not merely from the boldness of its speculations, but from the exceeding richness in fact and observation of its contents, and from the suggestive fashion in which it presents the problem of evolution.

OUR LIBRARY TABLE.

A Treatise on Gout, Rheumatism, and allied Affections. By PETER HOOD, M.D. Second Edition, with additional Chapter on "Longevity." London: J. & A. Churchill. 1877.—We are pleased to welcome the second edition of this agreeably written and readable book. The observations on treatment are specially to be commended. It is refreshing in these days, when the ascetic treatment of gout is so much in vogue, especially among a certain class of fashionable physicians, to find that the directions as to the use of food and alcohol are based on common sense, and that some account is made of the experience of older physicians, who held it to be unwise to add to the existing debility of the patient by a too rapid or absolute curtailment of the patient's wonted stimulus.

On Diphtheria: its Nature, Varieties, Pathology, Diagnosis, and Treatment. By R. H. SEMPLE, M.D., F.R.C.P., &c. Second Edition. London: Baillière, Tindall, & Cox. 1879.—The first "memoir" (so called by the author) was written in 1871, some five years after it began to be mentioned that a new disease had made its appearance in some parts of France, &c. The author of this little work was appointed, in 1858, to collect and to edit, for the New Sydenham Society, whatever memoirs were extant on the subject of diphtheria. Inasmuch as Dr. Semple says, in the preface to this edition, that nothing has been altered or retracted, there is little to say in the way of criticism that could not be echoed as a repetition of the review when the book first appeared. It is, however, satisfactory to the writer and to his readers also to know that the doctrines laid down many years ago do not need negation in any sort of way, but may

be confirmed after a long interval. This cannot be said of many medical works, and so we wish the second edition the success it deserves.

Visiting List Temperature Charts. Leeds: Harvey and Reynolds.—This is another of those useful companions for the busy practitioner which we have to notice from time to time. The charts are clearly printed, are of very convenient size, and can be obtained in books of fifty. As each is filled up it can be torn from the book, and placed with the record of the case. We believe such charts meet an expressed want, and of their value in enabling a systematic record to be kept there can be no doubt.

Memorandum Books for Practitioners.—Messrs. John Richardson and Co.'s visiting list has especial features of interest and usefulness for the general practitioner. It provides for the systematic registration of medical reports, and for keeping a list of drugs wanted, instruments lent, &c. Specimen pages will be found at the end of the Annual Price Current of this firm, which is compiled and presented in a very convenient form for medical men who dispense for their own patients.

New Inventions.

MECHANICAL AIDS FOR PERSONS COMPELLED TO PRACTISE REGULAR CATHETERISM.

MESSRS. MAYER & MELTZER, of 71, Great Portland-street, have, from the designs of Mr. G. Buckston Browne, made two apparatus likely to prove useful to the above class of patients. For in-doors, a box has been arranged, standing on four legs, and containing everything that a patient needs in order to use his catheter during the night or day. This contrivance will doubtless save both fatigue and loss of time. Fig. 1 represents the box; it contains a pot-de-chambre (E), a washing-out india-rubber bottle (A), a box of matches (B), an oil-bottle (C), a candle (D), a drawer for catheters (F), and a drawer for towels (G). The box is portable, shutting up into a small compass; the four short legs unscrew, and are packed into the towel-drawer.

FIG. 1.

FIG. 2.

For out-door use a walking-stick has been contrived, containing an oil-bottle and a receptacle for catheters. It is intended to obviate the trouble and annoyance of carrying oil and catheters in the pocket. Fig. 2 illustrates the walking-stick. The top of the handle (A) unscrews, and exposes an oil-bottle (B), beneath which there is a receptacle for a couple of catheters. In cases where a curved catheter is necessary the handle of the walking-stick may be suitably bent.

INVALID TABLE AND DESK.

SURGEON-MAJOR J. B. HAMILTON, Statistical Officer to the Surgeon-General, Simla, has invented an "invalid table and desk" for the use of patients confined to bed, which appears to be exceedingly simple, ingenious, and portable. It consists of a revolving shelf or table, supported on a light wooden framework, with handles at the side, and is placed over the bed. By an arrangement of holes and pins attached by light chains the height above the bed is regulated, thus allowing a thin or stout person to use it in comfort; these same pins support the framework on the sides of the cot. When used as a table for meals &c., the revolving shelf is set at right angles, rests on a small block, and a pin inserted above fixes it firmly. When required for use as a writing or reading desk the pin is removed, and by depressing a small handle attached to the front of the table the latter is raised to the desired slope, is fixed by the same pin, and a comfortable desk is formed. This action is very simple, and can be worked by a bedridden patient with little trouble or exertion. The cost of the apparatus, made of deal or some cheap light wood, is stated to be only a few shillings. It has been adopted by the Government of India for use in their military hospitals.

CLOSET VENTILATING APPARATUS.

MR. THOMAS WALLER, C.C., of Fish-street-hill, has invented a ventilating apparatus for closets, which is commendable on account of its simplicity. The only visible peculiarities are wired apertures for the entrance of air below and in front, and the same arrangement at the back and just above the level of the seat. By fixing a tube at the back of the closet, with an open mouth let into the spaces above and below the seat, gases which enter the closet through defective joints in soil or syphon-pipes are carried away immediately. The flap or cover, being fixed on an incline, acts in the same way as a blower to a fireplace. This ventilation can be made equally suitable for hospitals and sick-rooms if the ventilating tube be connected with the chimney. The inexpensiveness and simplicity of the arrangement are its chief recommendations, and it is hence worthy the attention of hospital, asylum, and union authorities.

THE LATE DR. MURCHISON.

To the Editor of THE LANCET.

SIR,—Allow me to express to you my deep regret at hearing just now of the death of Dr. Murchison. Allow me this expansion of my sympathy for a man so modest and of so great scientific medical knowledge. His well known writings; his great diagnostic power and abilities to train students in difficult clinical work; his kindness without affectation, together with the view of a suffering man—a tale soon told by the sad, slightly edœmatous face, and the strong pulsation of the external carotid—a man, I say, who knew how to forget himself for the benefit of others, made of Dr. Murchison an interesting and very sympathetic figure to me and other foreign visitors of his *clinique*.

Lastly, allow me, Sir, to say it would be a beauty more among the many of St. Thomas's Hospital to see changed the name of Mary or Arthur wards for the name of one who was so modest, so wise, and an unrivalled teacher.

Yours, Sir, very truly,

Paris, 25th April, 1879. A FOREIGN DOCTOR.

THE LANCET.

LONDON: SATURDAY, MAY 3, 1879.

IT is the custom to consider the Medical Department of the Army as a non-combatant branch. The term "non-combatant" is applied to medical officers by the "military body" generally in a disparaging or sneering sense. Now medical officers do not wish for one moment to usurp the powers of their so-called combatant brethren; they want no "command," except over their own hospitals and the *personnel* connected with their medical administration; in these respects, however, they do, and very rightly, demand to have full control and power, subject to the authority of the General officer in whose district they may be serving. They do not wish to be called or regarded as combatants in the fighting sense of the word, although from our point of view they may be said to be so. Do they not combat disease and death every day of their lives—whether battling with the grim enemy in the deadly cholera camp or the yellow fever ward, or rendering aid to the wounded under fire on the battle-field?

Let us look back on the events of the past few months, while they are fresh in our memory. A goodly "roll-call" stands forth of army surgeons who have suffered and fallen in the execution of their duty. At Cyprus the first officer to die from the effects of climate and exposure was Surgeon-Major MENZIES. Yellow fever broke out last autumn in the West Indies; it carried off one combatant officer, but three doctors—Surgeons ROBINSON and CROFTS, and a medical officer of the Navy. In the present Zulu war, Surgeon-Major SHEPHERD, with Surgeons BRICE and GLANVILLE, of the Natal service, were massacred at Isandula. In the defeat on the Intombi river Dr. COBBIN was assegaied with his men. At Rorke's Drift, Surgeon REYNOLDS shared the dangers of that awful night with CHARD and BROMHEAD, attending the wounded under fire, cheering and encouraging the men. In their despatches, both Sir BARTLE FRERE and Lord CHELMSFORD omitted all mention of REYNOLDS's name; they noted his gallant services in the words "a departmental officer." He was a non-combatant, and therefore his services were to be slurred over, his personal merits put out of sight. In the relief of Ekowe, Surgeon LONGFIELD, R.N., was dangerously wounded. Turning to the Afghan war, it will be seen that medical officers have shared every hardship and privation of the campaign—long marches, intense cold, half rations, medical work under fire. Surgeon BURROUGHS was wounded while on duty with the Sinde horse when Major REYNOLDS fell. Statistics prove beyond the possibility of question how the lives of medical officers are spent in the service of their country. The mortality of medical officers is nearly 20 per cent. higher than that of combatant officers of the same age and from all causes. Nevertheless, it is notorious that rewards and honours are very sparingly dealt out to members of our profession in the Army, as elsewhere. The report of the Committee which lately investigated the condition of the Army Medical Department brings out this point most clearly, and it may be hoped that Colonel STANLEY will see the necessity of redressing the grievance. It is only just that men whose lives are so often risked and, as experience has proved, unflinchingly sacrificed at the call of duty, should not be disregarded in the distribution of those honorary distinctions which all officers, medical and military, have a just pride in receiving from the hands of their Sovereign.

The sting of the taunt that medical officers in the army are non-combatant lies in the fact that it is urged as a reason for excluding them from a due share of the prestige and social and personal privileges accruing to the service. It is contended, or assumed, that they do not share the full risks and hardships of the military profession, and, therefore, cannot be recognised as having a claim to the dignity it confers and the rewards, such as they are, which it offers for devotion and loyalty. As a simple matter this argument is untenable. The perils of disease and death to which medical officers in the army are exposed greatly exceed those of ordinary practice, while the average emoluments of the medical branch of the service so far fall short of those to be earned in civil practice that it is a subject of marvel to the profession as a whole that men qualified for good work in the general population should be found willing to serve in Her Majesty's forces—we beg pardon; as medical officers are at present regarded, it would be correct to say *attend on*, rather than *serve in*, the army. It is useless to avoid this question. The status accorded to Medicine in military circles is that of a camp-following. It is kept in the rear as much as possible, and when in the hour of need it is necessary that medical officers should be called to the front, or when circumstances expose them to the special perils of war, the dangers incurred, the courage displayed, and the merit shown, are either ignored or minimised in valuation.

These are grave charges to make, and they are not overstated. We believe the grudging recognition awarded to the personal service and gallantry of medical men in the army has a strongly deterrent influence on possible candidates. When medical students, knowing the facts, find that the self-sacrifice and zeal displayed by medical men are not even acknowledged, that they are treated as mere hangers-on to the skirts of the service, and denied a full share of its honours and privileges, they not unnaturally turn away from a career which has risks far above those of civil practice, and nothing but the most pitiful rewards to offer in return. When to this is added the fact that the treatment they must expect at the hands of men who have—under the existing system of admission to the ranks of commissioned officers at least—no social claim to precedence, is foreshadowed by the paltry argument that as "non-combatants" they have no valid claim to a full share in service distinctions, it is surprising that any young man with proper self-respect seeks admission to the service. Sooner or later this will be forced on the consideration of the country and the profession. It is too late to hope for justice, or even a policy of common prudence, at the War Office.

No legislation on the subject of coroners and their duties can possibly be accepted as satisfactory which neglects to provide some security for a nearer approach to uniformity

in the exercise of coroners' discretion as to the necessity for holding inquests. In the Coroner's Bill which has been introduced to the House of Commons by the Home Secretary, no intelligible attempt is made to define the conditions under which inquests should be held, much less to provide the means for informing coroners of deaths which appear to necessitate inquests. It is proposed to enact that whenever a person has died, or is reasonably suspected of having died, either a violent or an unnatural death, or has died a sudden death of which the cause is unknown, or has died in prison, or in such place or under such circumstances as to require an inquest in pursuance of any Act, the coroner having jurisdiction shall hold an inquest. These conditions are certainly inclusive enough, but the want of definition and of some machinery for informing coroners of all violent and unnatural deaths (whatever an *unnatural* death may be intended to mean), is certain to make the clause practically inoperative. The effect of the present state of the law is to leave the discretion of the coroner as to the necessity for holding inquests entirely unfettered, resulting in a practice as unsatisfactory as it is anomalous. We have frequently had occasion to call attention to the administration of coroners' duties in Kent, where the number of coroners is exceptionally large. During the last three months of 1878 no less than 45 deaths from different forms of violence were registered in the South-eastern registration division, without having been the subject of inquests; of these 18 occurred in the county of Kent, and 14 in Sussex. Indeed, in the counties of Kent and Sussex no inquests were held with regard to one-fifth, or 20 per cent., of the deaths referred to violence during the last quarter of 1878. Of these 45 deaths from violence, which were not the subjects of inquests, 22 resulted from different forms of fractures or contusions, 8 from burns or scalds, 4 from wounds or cuts, 3 from suffocation (all infant cases), 1 from drowning, and 7 from injuries indefinitely described. It is impossible to doubt that inquests ought to have been held concerning the causes of most of these 45 deaths from violence; and it is equally certain that inquests would have been held in most of the cases if these deaths had occurred in other localities. We are, however, at a loss to see that the proposed new Coroners Bill will provide any remedy for this state of things. The Bill does, indeed, say that an inquest shall be held whenever a person is even suspected of dying a violent death, but it makes no provision for the reference of all deaths from violence to the coroner previous to registration and burial. It would be useful to know whether the coroners of Kent and Sussex were duly apprised of these 45 deaths from violence during the last quarter of 1878, and, if so, the grounds on which they decided that it was unnecessary to hold inquests.

MODERN physiological research has demonstrated the dependence of perspiration upon the nervous system, not merely as a normal phenomenon, but also as the result of the administration of diaphoretic medicines. The researches of MARMIÉ and NAWROCKI have shown that the centre which regulates the occurrence of sweating is probably seated in the medulla oblongata, and this observation is confirmed by a new series of experiments by the last-named investigator. These experiments, an outline of which has been published in the *Centralblatt fur die Med. Wissenschaften*, are of interest also as a fresh demonstration of the fact that some medicinal agents which promote perspiration act through this medullary centre. The drugs employed in these observations were acetate of ammonia, sulphate of physostigmin, nicotin, and picrotoxin. MARMIÉ showed that the injection of camphor dissolved in oil, or a solution of acetate of ammonia, caused perspiration upon every paw of the animals experimented on, but that if one sciatic nerve was divided the corresponding paw remained dry. Section of the lower part of the spinal cord also arrested the effect. NAWROCKI finds that the perspiration is also arrested by section of the cord below the medulla oblongata, the animal being, of course, under artificial respiration. A similar result was obtained with sulphate of physostigmin. The spinal cord below the medulla and the left sciatic nerve of a curarised animal were divided; the feet were dry. Four milligrammes of physostigmin were then injected without effect. The left sciatic was then stimulated by faradisation, and after a minute the left foot was covered with abundant drops of sweat. On the other hand, the sciatic only was divided in another animal; the same quantity of physostigmin caused abundant sweating in the other three paws, but that of the leg in which the sciatic had been divided remained dry.

LUCHSINGER proved that nicotin exerts an action on the centres for perspiration, and found that in rare cases it was capable of exciting a slight secretion of sweat after the nerves of the limb had been divided. NAWROCKI found that after division of the cord below the medulla, a slight secretion followed the severe convulsions which the injection of one drop of nicotin immediately produced, but subsequent convulsive attacks caused no perspiration. In another animal one sciatic nerve was divided, the spinal cord being left intact. The injection of nicotin caused profuse secretion on the other three paws, but none in that supplied by the divided sciatic. The injection of picrotoxin, which had been found by LUCHSINGER to be a powerful diaphoretic, yielded similar results. After division of the spinal cord at the eighth dorsal vertebra, picrotoxin (·04 grm.) caused sweating on the fore-paws, none on the hind-paws. In another similar experiment, faradisation of one sciatic caused sweat to appear on the corresponding paw, although the other remained dry, in spite of severe convulsion, during which the fore-paws were covered with sweat. Division of the cord at the level of either the third or the first cervical vertebra arrested all secretion of sweat after the injection of picrotoxin, although abundant salivary and lachrymal secretion occurred. On the other hand, in a similar experiment to the last, although after division of the cord picrotoxin had no effect, pilocarpin subsequently injected caused in four minutes abundant secretion from all the limbs.

APPLICATION for a new trial in this case has been made to the Court of Queen's Bench. The facts, to which we alluded in a recent number, are not contested. The professional income of Dr. PHILLIPS was about £6500 per annum, and it was proved that his professional expenditure was very heavy, necessitating the keeping of two carriages and six horses, and the renting of consultation-rooms in Brook-street

in addition to his private residence in Grosvenor-square. Although the professional income was estimated at the sum named, the estimate did not take cognisance of several handsome presents which Dr. PHILLIPS had received from patients, nor did it include one fee of £5000 which he had had the good fortune to receive. It was argued that at the previous trial the judge had erred in not making the jury clearly understand that, in estimating the amount of damages, no account was to be taken of the private income of the plaintiff, and it was also argued that the damages allowed were wholly inadequate.

It seems to be generally admitted, and we think rightly, that it would be not right to seek to give a full compensation in a case like the present. For example, it would be very unjust to the South-Western Railway Company to say that Dr. PHILLIPS, being of the age of forty-seven, and whose expectation of life, according to recognised calculations, is twenty-one years, is entitled to receive from the Company a sum sufficient to purchase an annuity of £6500 for twenty-one years. Such a sum would amount to between £90,000 and £100,000, and it would be manifestly very hard upon railway shareholders to compel them to give damages of such great magnitude. It would not only be unfair but very impolitic, for if such a course were adopted it would effectually paralyse all railway enterprise in this country. The sum actually given, however, is insufficient to purchase an annuity of £500 per annum, and if invested would yield less than £300 per annum, and we certainly think that such a sum is very inadequate, seeing, as we have already pointed out, and as the Attorney-General contended, that the presumed loss of the plaintiff between the date of the accident and the date of the trial has amounted to something like £9000.

If the plaintiff is compelled to entirely relinquish his profession, his expenses will diminish also, and the Attorney-General was correct in assuming that the necessary professional expenditure was equal to £2000 per annum, so that the income actually lost amounts to about £4500. We will not enter into any calculations of the amount which ought to be allotted, for directly we admit, as all do admit, that it is neither desirable nor right to give absolute compensation, we at once remove every basis for calculation. The Lord Chief Justice had "no hesitation in saying that the damages were inadequate," but added that "it would not be right to send the case down for a new trial without laying down some rule for the guidance of the judge who might have to direct the jury." The Court will take time to consider, and we shall await its decision with some curiosity.

Annotations.

"Ne quid nimis."

THE SALMON DISEASE.

SIR ROBERT CHRISTISON, Bart., of Edinburgh, writes:—"The state of matters in regard to the salmon disease is as follows, and is very serious. Last year the disease was first taken notice of publicly as prevailing to a great extent in the rivers of the Solway—the Eden, Esk, Annan, and Nith. Dead fish were found in multitudes, and very many were caught with the disease, both in the rivers and on the shores of the estuary. The nature of the disease was investigated by more than one observer—very ably by Mr. Stirling, assistant-conservator of our Anatomical Museum, whose paper on the subject may be seen in the 'Proceedings of the Royal Society of Edinburgh,' recently published (1877–78, p. 726). Mr. Stirling found the disease to be a branching fungus (*Saprolegnia ferax*), which attaches itself in the first instance to those parts of the fish which are destitute of scales—such as the nose, forehead, and the regions immediately adjacent to the fins. But it spreads rapidly around, owing to the irritation it causes forcing the fish to rub itself against the sand and gravel, and so remove its scales. Extensive and deep gashes are thus produced, and ere long the fish dies exhausted. Most of the fish are in bad condition. But this may be owing to the disease, not to original lowness of constitution; for I have seen it well advanced in plump, firm, fat fish, with no indication whatever of unsoundness except the disease itself, and clearly fresh-run, or, as fishermen say, 'clean fish.'

"The same disease has been met with in other fishes of the Solway rivers—at least in the river-trout and grayling. All inquiry hitherto made has failed to indicate the cause. Town-sewage, at first denounced, now appears inadequate to give an explanation.

"So much for the Solway epidemic. In the beginning of last week I was startled on receiving from the tideway of Berwick a fine salmon with the skin evidently affected extensively with a disease, the nature of which I was requested to explain. Not being very well at the time, I transmitted it to Mr. Stirling, who, I then found, had just received several similar fish from the Cornhill and Coldstream pools many miles in the Tweed above the influence of the tide. Mr. Stirling has ascertained that the disease is quite identical with that of last year in the Solway rivers. It seems already to prevail very widely, and my first informant, Mr. Paulin, secretary of the Berwick Fisheries Company, states that the fishermen have found it on almost every other species of fish that is caught in the tideway at Berwick.

"On receiving this information I wrote to Mr. Macalpine Levy, of Dalswinton, who owns about four miles of salmon-water on the Nith, above Dumfries, and requested him to let me know how matters were turning out this year in the Solway rivers. He answered that he has very bad news from several of them; that the disease in his own river is as frequent as last year, making allowance for the great reduction of numbers then occasioned by the epidemic; and that, in his opinion, if the disease goes on, 'there will not be a salmon left in the Nith in the course of three years.'

"This is a very serious state of things. It calls, I think, for Government interference, by the *immediate* establishment of a commission of inquiry, which should watch every salmon river on both the east and west coasts, *whether infected or not* with the disease. More valuable information will be obtained by observing those rivers which may remain free, or by observing the first beginnings of disease in them, than by any painstaking enumeration of losses sustained in the rivers in which the malady has been firmly and widely seated. In like manner, the causes and circumstances of unusual epidemics among mankind are better traced by examining them at their origin, and at places exempt from them, than by limiting the inquiry to their favourite localities when fully invaded.

"I hear nothing of the disease having appeared in the Spey, or, indeed, in any other part north of the Tweed. *All these, therefore, should be carefully watched at once.* My Edinburgh fishmonger, who is tacksman of the Forth fishings, says no trace of the disease has yet appeared in his waters."

EXAMINATIONS IN EDUCATION.

AT the forthcoming meeting of Convocation of the University of London, a report will be presented by the Annual Committee on the advisability of instituting examinations in the Theory and Practice of Education. The sub-committee appointed to draw up the report have come to the conclusion that the time has arrived when the important subject of education (or pedagogy, as it is called in Germany) must be reduced to some method, and not left, as is too often the case, to the fancy or whim of people who are quite ignorant of the nature both of the human mind and the human body. We are very glad to observe that among the recommendations for the scheme of examination are several which have a purely hygienic tendency. Candidates will be required (should the scheme be adopted by Convocation and the Senate) to show a competent knowledge of the arrangement of school buildings, and the best methods of lighting and warming them, as well as an acquaintance with those details of ordinary sanitary appliances which should be known by every householder, and especially by householders who are also schoolmasters. School furniture is also a subject to which some thought is to be devoted; and we may hope that the eyes or figures of scholars will run less risk of damage than hitherto by the want of a proper relation between the eye and the book, or by compelling growing children to sit in cramped and uneasy positions. Some knowledge also will be required of the principles which underlie a proper physical training, and, in short, there seems to be every prospect that the properly educated schoolmaster of the future will be a person thoroughly competent to train both the minds and bodies of the pupils entrusted to his care.

INFANT SUFFOCATION IN LONDON.

IT will probably be not a little startling to many to learn from the Registrar-General's annual summary for 1878, which has just been issued, that no less than 503 infants under one year of age were suffocated in London during last year. In 1876 and 1877 the numbers were, however, 488 and 486 respectively, and, allowing for increase of population, the fatality from this cause may be said to have been stationary for some years. In 1878, of each 1000 children born in London, 3·9 died a violent death from suffocation, corresponding, indeed, with the proportion in the five preceding years. If we except Birmingham and Liverpool, where the average proportion of infants suffocated during the five years 1873–7 was respectively 8·9 and 8·2 per 1000 born, there is no other large English town in which the infant mortality from this cause approaches that which prevails in London. In Manchester, Salford, Sheffield, Sunderland, Wolverhampton, Norwich, and Oldham the average proportion of infants suffocated is less than one per 1000 of those born. The causes of this excessive proportion of infant suffocation in Birmingham, Liverpool, and London call for investigation. It appears to us that an examination of the varying local incidence of this infant suffocation in London during 1878 points to the conclusion that its causation bears an intimate relation to sanitary condition, in the broad sense of that term. In the five groups of registration districts the proportion of cases of infant suffocation to 1000 births (which averaged 3·9 in the whole of London) was equal to 2·2 in the south, 2·9 in the west, 3·5 in the north, 6·5 in the east, and 7·5 in the central group. It is evident, therefore, that infant suffocation shows the most striking excess in the districts of central and east London. A more detailed examination of the local fatality from infant suffocation shows that the highest proportion was 9·7 in the district or union of Holborn (including Clerkenwell and St. Luke's, as well as Holborn proper); the next highest proportions were 9·4 in Stepney, 8·7 in Whitechapel, 7·8 in Westminster, 7·5 in Bethnal-green, 7·1 in Shoreditch, and 7·0 in St. George's-in-the-East. No one having any acquaintance with the homes and inner life of a large proportion of the poor [residents in these localities can fail to see an undoubted connexion between their sanitary defects and their overcrowding on the one hand, and the exceeding high rates of infant suffocation on the other. Suffocation is only one cause, although, perhaps, one of the most hideous causes, of infant mortality, which shows so large an excess in the crowded districts of central and east London. No case of suffocation occurred in Hampstead, and only one in Lewisham, although more than 3000 children were born in those two districts. There is far too general a tendency on the part of sanitary authorities, and too often of medical officers of health, to disclaim responsibility for infant mortality, on the ground that it is due to social rather than to sanitary defects. Infant mortality may be, and too often is, the direct result of poverty, ignorance, neglect, or drunkenness on the part of parents. It is, however, far more frequently the indirect result of unregulated overcrowding in the "slums and dens" which still exist in many parts of London, notably in the central and east districts, to the disgrace of our civilisation and sanitary authorities. It is mainly in these "slums and dens" (so forcibly written of by Mr. Torrens, M.P., in the current number of *Macmillan*) that 500 infants are suffocated each year in London; and there originate most of the fever cases that fill our Metropolitan Asylum Hospitals, to the great cost of London ratepayers.

THE PLAGUE.

DR. HIRSCH, the German Medical Commissioner to the recent seat of plague on the Volga, has already presented to his government an official report of the results of his visit. The matter of chief interest in the report is that which relates to the origin of the disease there; and he has to confess that the question must still remain open. He describes the unaccustomed prevalence of a non-fatal bubonic affection in Astrakhan in 1877—some two hundred cases were observed,—which he hesitates to designate plague. He reviews also the questions of importation of the disease direct from Resht in the ordinary course of communication, and from Armenia by returning troops; but the evidence in either case is insufficient to justify a conclusion. He refers also to the question of indirect introduction from Armenia by textile articles, brought back by Cossacks as plunder, but with a like indeterminate result. "Typhus with buboes" existed among the army of the Caucasus in 1877 and 1878, but this was no sufficient evidence of plague. Obviously he failed to discover the clue to the outbreak, and he does not appear to have been aware at the time of Tholozan's averment and argument, that the outbreak on the Volga was an independent outbreak, as the outbreaks in Resht, in Mesopotamia, and elsewhere.

On the 22nd ult. the sanitary cordon established around the plague-infected district on the Lower Volga, and the special cordons placed around certain villages within it, were all raised, and free intercourse was established between the district and neighbouring districts. Previously to the removal of the cordon, by the direction of the Governor of Astrakhan, a meeting of the heads of the sanitary detachments in the district took place in Vetlianka to consider the question, and a unanimous conclusion was come to in favour of the definitive and general raising of the quarantines.

The sanitary detachments will continue their functions of supervision in the infected district, as previously determined. Some changes have been made in the distribution of the chiefs, and Dr. Krassovsky has had to retire from his charge of the fourth detachment in consequence of ill-health.

He is succeeded by Dr. Joujvakine. According to the present disposition of the detachments in the localities which have had plague, each chief of a detachment has about 1000 inhabitants under observation; in the localities within the infected area which have not had plague about 3000 inhabitants are assigned to each chief. At Vetlianka, however, where the outbreak chiefly declared itself, five medical men have been detailed for the observation of the 1628 inhabitants. A sanitary detachment, under the charge of Dr. Kremer has been appointed to the supervision of the district lying between Samiane (at the southern boundary of the infected area) and Astrakhan; and another detachment under Dr. Schilkarsky has been appointed for the supervision of the district lying between Tsaritsyn and the frontier of the province. Tsaritsyn itself is placed under the supervision of Dr. Jacoby, who, moreover, is charged with the general superintendence of the several detachments. The chiefs of detachments will meet in conference from time to time to consider the measures adopted for maintaining the amended sanitary state of the localities under their charge.

On the 3rd April the hygienic measures advised with respect to the localities where plague had been, including the destruction by fire of infected houses, had, with some exceptions, been fully carried out. At that date it is reported no malady of an epidemic character existed within the district invested by the general sanitary cordon.

The quarantine declared by several Mediterranean powers against ships arriving from Turkey and the Black Sea has been generally done away with, and the measures prohibiting the transmission of certain articles from Russia across the German and Austrian frontiers, presumed to be susceptible of carrying the infection of plague, have been much relaxed.

THE SALARY OF THE CORONER FOR CENTRAL MIDDLESEX.

DR. HARDWICKE has addressed a letter to the magistrates for the county of Middlesex, claiming from them £587 13*s.* as arrears of salary. Dr. Hardwicke's claim has a very simple and, we think, a very sound basis, contained in Clause 4 of the Act 23 & 24 Vic., cap. 116, commonly known as the Coroner's Salary Act, and passed almost expressly to regulate the remuneration of county coroners. Clause 4 provides that the salary shall be based upon a quinquennial estimate of the number of inquests held, instead of by fees. This estimate should have been made three years ago, but was declined by a resolution of the magistrates, who made the astounding statement that the county coroners were already amply paid, and that the greater number of inquests were unnecessary and improper! We do not always agree with Dr. Hardwicke, who owed his election to the strong public feeling that the coroner to succeed Wakley and Lankester should be a medical man. He has been considered by the profession to have, speaking generally, been too ready to dispense with inquests, and at inquests with medical evidence. It is hard, and, doubtless, illegal, under these circumstances, that the magistrates should have refused three years ago to make the new estimate by which his salary must have been raised about £200 a year. It would be a fatal error of the magistrates or the Home Secretary to encourage carelessness and indifference in county coroners. To our knowledge many most unsatisfactory cases of death are allowed to go uninvestigated. Dr. Hardwicke mentions several classes of deaths which especially demand vigilance in a coroner for Central Middlesex: those of infants; those from alcoholic poisoning ("pure suicides," as he calls them); those from destitution and chronic pauperism, only another name for starvation; many deaths from infectious diseases negligently contracted and negligently spread; deaths of persons unattended by medical men, and uncertificated cases. The public investigation of such cases would be extremely valuable and instructive. To say nothing of actual inquests, which have not increased with the increase of the population, under Dr. Hardwicke, a great amount of trouble accrues to the coroner in the shape of informal inquiries which obviate inquests, and which do not come into consideration in the preparation of the quinquennial estimate. Under all these circumstances we hope the Middlesex magistrates will make amends for their tardy action, and rather encourage their coroner to increased vigilance than drive him to apathy. Should they not accede to his request, we hope the Home Secretary will use the power conferred upon him in the Act, in the event of disagreement between the magistrates and the coroner, of putting the salary of the coroner on a satisfactory basis.

THE NOXIOUS VAPOURS BILL.

THIS Bill, introduced into the House of Commons some few days ago by the President of the Local Government Board, Lord Sandon, Sir H. Selwin-Ibbetson, and Mr. Salt, is the good and practical outcome of a great deal of work and pressure put upon the Government by influential persons in Lancashire and Cheshire, including specially Liverpool and Manchester, and also the members of the South-Eastern Sanitary Association, which latter have been in some way assisted by the Port of London sanitary officers in getting up evidence. On Saturday, the 16th of November last, a deputation from the authorities above mentioned was received at the Local Government Board by Mr. Sclater Booth, being introduced by Lord Derby, who, in a terse but effective speech, reviewed the entire situation with exceedingly admirable lucidity, and was followed by the mayor of Liverpool, the town clerk of Manchester, Mr. Spurling, and Professor Heaton, of the South-Eastern Association, and others, all of whom showed the miserable state to which the counties in which these noxious manufactures were carried on was reduced. This meeting, together with the very practical report of the Royal Commission on the same subject, induced the President of the Local Government Board to frame a Bill, the provisions of which are sufficiently plain and precise. There are but thirty-three sections, the practical portions of which relate to the condensation of acid gases, the deposit of alkali waste, provisions as to alkali waste and acid drainage, special regulations as to sulphuric acid and other works, particularly arsenic. The other sections relate mainly to administration. We propose to postpone detailed criticism as to the special clauses until the Bill reaches Committee, but meanwhile may fairly congratulate those Associations, the members of which, by combined, practical, and persistent efforts, have brought about so useful a piece of legislation.

A SELF-SUPPORTING DISPENSARY AT LAST.

RUGELEY has long had a creditable provident dispensary. It has now a greater credit still, and, as far as we know, a unique one. The provident dispensary has become a self-supporting one. It numbers 2867 benefit members out of a population of 10,000. From its foundation, in 1866, it has been nearly self-supporting. Now it is entirely so. The members, by a weekly payment of 1*d.* and a yearly payment of 1*s.* per family extra, pay every cost, not only of medical attendance and medicines, but of management, printing, and organisation. At the close of 1878 a balance of £1 5*s.* to the good appeared on the face of the dispensary account. The four medical officers received amongst them £467 17*s.* for attending 1797 members of the dispensary (about £115 each). Even confinement cases are paid for by members, though at a very unsatisfactory rate. For sixty midwifery cases £15 was paid by members to the medical

officers. We think a five-shilling fee for midwifery is most objectionable. It is unworthy of provident people, and it is unjust to other practitioners. The great argument of those who oppose provident dispensaries is the smallness of the remuneration to medical men and the unfitness of some of the members. In the midwifery department of the Rugeley Dispensary the former objection seems to obtain strongly. We cannot judge from the report how far the money received by the medical officers represents a fair remuneration for general work done. We hope the disproportion between these is less than in the obstetric department. Dr. Henry Monckton, in a hearty paper on the subject which he sends us, says, "Every five of our dispensary members pay a guinea a year, well or ill." That is a little over four shillings a year each. This really seems to us very little. Dr. Monckton speaks of the million out of the four millions of London who are relieved at London medical charities. He must remember a fallacy often overlooked here—viz., that the million is not a million of distinct individuals, but that the same individual figures in separate charities and at different times in the same charity, so raising the figures of apparently distinct cases. Further, it is certain that many of the persons included in that reduced million give to a medical man far more annually than four shillings a year. We make these remarks in no disparaging spirit, but really to excite the criticism of intelligent friends of the provident dispensary movement, and to encourage them to make it still more attractive to the members of the profession, and more worthy of the provident members of the working classes.

MEDICAL EDUCATION IN THE UNITED STATES.

IT is well known that medical education in the United States is not in such a condition as to satisfy those who most worthily represent the profession in America. Every State has innumerable medical schools, each of which gives not only so-called education, but a diploma. A circular from Professor Leartus Connor, secretary of the "American Medical College Association," calling for a convention to be held in the city of Atlanta, Georgia, on Friday, May 2nd, ably sets forth this great evil. There is no uniformity in the requirements of the different schools and colleges, and very ignorant persons who tire of the process of education in one college go off to another. The following is a case in point. In October, 1869, a young man commenced the study of medicine by matriculating in the medical department of Michigan University. He gave the name of a preceptor, but had never (as he stated then) attended medical lectures, nor even studied medicine sufficiently to know what text-books on anatomy were in common use. He declared his intention, in beginning his lectures, to remain three years there in the study of medicine. In March, 1870, he left this for another school, declaring on leaving that he had pretty good assurances from its faculty that he could graduate. On the following June he returned with his diploma, which must have been genuine, as he is announced among the graduates of that school for June, 1870—a little less than nine months from the first medical lecture he could furnish any voucher for to the faculty who granted the diploma. We doubtless overdo mere lecturing in this country. But what can we think of a system of which the above is not an infrequent illustration? The public, of course, are the ultimate sufferers, in proof of which we will copy a prescription given by one of these M.D.s!

℞ Pot. iodide, ʒ iiss.
Pot. arsenite, ʒ iiss.
Syrup. simplex, ad ʒ i. M.
Teaspoonful three or four times a day in a little water.

The friends of medical education are trying to procure governmental co-operation. They think the present condition of the medical schools so bad that each State should prohibit anyone practising within its bounds who has not passed an examination before a board composed of some of the best physicians in that State. All States joining in the recognition of certain legal conditions of medical practice might agree to recognise each other's diplomas. Clearly the condition of matters is very bad, and those who seek to remedy it have our heartiest good wishes.

TYPHOID FEVER AT PENZANCE.

PENZANCE has had a sharp outbreak of typhoid fever. The disease would appear to have been confined to one part of the town. Since September 49 attacks have occurred, distributed in 27 houses. Six of the attacks ended fatally. At a recent meeting of the Town Council, a resident whose family had suffered from the disease made application to have his house drains disconnected with the town sewers, and connected again with a private drain with which they had previously communicated, on the ground that the mischief in his house had been created by entrance of sewer-gas from the common sewers, and that the evil might recur in the present state of the sewers. The discussion on the subject in the Council seems to suggest—first, that the source of the outbreak of typhoid had not been as clearly made out as was desirable; and, secondly, that the Town Council was somewhat at sea as to the means of obviating the evils to which systems of common sewers may give rise. But, however this may be, the Town Council displayed a degree of wisdom in dealing with the business before them which we wish were oftener witnessed with corporate bodies in such matters, and particularly bodies which have the governance of favourite health-resorts such as Penzance is. The Council recognised that it could not but be injurious to Penzance that any doubt should exist upon the sanitary arrangements of the town or of the willingness of the Corporation to do all that within it lay to promote the healthiness of the place; and upon the motion of Mr. R. H. Preston a resolution was passed asking the Sanitary Committee to report upon the desirability of obtaining a visit from a Government inspector or sanitary engineer, to examine into the questions arising out of the recent outbreak. This is the sure way to give confidence to the public that the local authority is conscientiously striving to do its best for the sanitary welfare of the town, and to establish its sanitary reputation upon a sound basis. The Sanitary Committee will act wisely in facilitating the execution of the Council's recommendation.

"PRAYING DOCTORS."

THE *World* of April 23rd has an article on praying doctors, which imputes to certain—or a certain class of—medical practitioners, that they seize the opportunity offered by the bodily and mental weakness of their patients, to ply them with appeals and exhortations on the subject of religion, and so practically establish themselves as medical *confessors*. If there were any real ground for this imputation we should be the first to denounce a procedure so obviously at variance with the obligations of medical etiquette and domestic decency. No confounding of the functions of the physician with those of the spiritual director would be sanctioned by the approval of the profession. If a practitioner were known to abuse his proper relations with the sick by proselytising, or making personal capital out of a pretence of religious zeal, he would be justly ostracised by the common sense of the scientific community. We do not, however, believe the assertion, that such a course is pursued by any creditable member of the profession. There are, of course, black sheep in every flock, our own not excepted; but we hope, and have confidence, that the number of those blackest of black-hearted men who would utilise a reputation for praying, and an aptitude for preaching, in the

interest of a "connexion," is very small, and of the total crew the medical profession has few representatives in its ranks. So pace the World.

THE LATE INSPECTOR-GENERAL MACKAY.

The Times of Thursday announces the death of Inspector-General of Hospitals and Fleets George Mackay, M.D., R.N., and Honorary Surgeon to the Queen, at Wellington, Somerset, from pneumonia, on the 26th ult. The deceased officer served as assistant-surgeon in the operations against Canton in 1841, and was surgeon in the *Bellerophon* in the Mediterranean and Black Sea fleet from April, 1851, until August, 1854, when he was transferred to the *Agamemnon* flagship of Rear-Admiral Sir Edmund Lyons, G.C.B. In June, 1855, he was appointed staff-surgeon and medical storekeeper at the Royal Hospital at Plymouth, where he remained until appointed, December 29th, 1860, Deputy Inspector-General at Hong Kong. He continued at Hong Kong till the close of 1865, when he was appointed Deputy Inspector-General at Haslar Hospital, and on October 20th, 1870, obtained the honorary rank of Inspector-General. Dr. Mackay was in receipt of a pension for wounds, and had been awarded Sir Gilbert Blane's medal and the fifth-class order of the Medjidie.

THE CONTAGIOUS DISEASES ACTS.

IN anticipation of the appointment of a Select Committee of the House of Commons to inquire into the operation of the Contagious Diseases Acts, the Association for the Repeal of these Acts has published a document, prepared by Dr. J. Birkbeck Nevins, which professes to be an analysis of the Army and Navy Medical Reports for 1877. We have so recently discussed the subject, as illustrated by the returns of eleven years (1866–77), that we deem it unnecessary to re-open the question. It is enough to say that the results of one year's observation, even if unfavourable to the Acts (which we by no means admit), would not avail to overthrow the evidence of the very marked benefit shown by the returns for the longer period to have been conferred by them. We have perused Dr. Nevins' paper, and can only say that he has failed entirely to satisfy us that the statistics in question are fallacious, or that these Acts have not conferred a great and substantial benefit upon the public services, and, we may add, upon the "unfortunate" women who have been brought under their operation.

INFUSORIA IN SPUTUM.

OF six cases of gangrene of the lungs, in which Dr. Kannenberg (Virchow's *Archiv* for March) has examined the sputum, in five he found not only the forms of fungi which Leyden and Jaffe have shown to be common in sputum (bacteria, leptothrix pulmonalis, and some spirilla), but also infusoria of the family of monads. They were present in the sputum immediately after expectoration, and were in most cases abundant, commonly embedded in plugs of fungus, but readily recognisable by their movement. Two forms were distinguishable, monas lens and cercomonas. The former is a pale spherule, somewhat smaller than a red blood-corpuscle, with a long filament often wrapped around it. The latter is somewhat larger than a lymph-corpuscle, also provided with a filament, often divided dichotomously, and presenting in its hinder part a process, and commonly with a clear nucleus in its interior. At rest, both forms are very similar.

It at first appeared doubtful whether these infusoria were actually expectorated from the lung—whether they might not come from the buccal fluids, or even be developed in the receptacle after expectoration. But their origin in the lung was proved by three facts:—(1) The infusoria were found only in putrid plugs, certainly from the lung, and in these they were aggregated in nests, so that sometimes twenty or thirty were found in a single field of the microscope. (2) In sputum just expectorated they were found to present the most active movement, and the longer the sputum was kept the more languid they became. Twenty-four hours after expectoration the monads could no longer be found. (3) They could never be found in the secretion of the mouth, and the repeated cleansing of the mouth by permanganate of potash had no influence on the appearance of the infusoria. In two fatal cases the lungs were carefully examined, in the endeavour to discover the infusoria, but without success. This seems explicable by the fact that in the sputum-pot they ceased to be visible in twenty-four hours.

This appears to be the first published demonstration of the occurrence of infusoria in sputum. They were seen by Leyden in his investigations, but regarded as of extraneous origin. This occurrence seems to be related especially to putrid processes, for they have not been found in cases of abscess of the lung in which micrococci are common. Their germs must be supposed to enter the lung by the inspired air, a favourable nidus for their development being presented by the gangrenous part. It is probable, therefore, that their presence may in some cases afford valuable diagnostic information.

HARD MASTERS.

A VERY plain duty was put before the Shardlow Guardians a few days ago, as appears from the reports of two meetings in the *Derby Mercury*. Dr. Brady, medical officer of the Normanton district, applied for an increase of salary in accordance with a great increase of population. Whatever the population, he showed that for seeing 35 paupers at his house, 76 visits to paupers at their own homes, and 111 bottles of medicine, in the quarter ending March, he had received £2 6*s*. 3*d*. This left him 13*s*. 9*d*. remaining as his three months' salary, less 4*s*. 4*d*. toll-bar charges. He modestly asked that his salary might be raised from £12 to £25. He gave the guardians an opportunity of doing an act of justice so obvious that they were going to do it right off, till the Rev. J. Wadham suggested they were going too fast, and got them to adjourn the discussion. At the adjourned meeting it was pointed out by another guardian that Dr. Brady's predecessor did the work for twenty-four years at a salary of £12; and the Rev. Mr. Wadham said Mr. William Henry Wright had offered to perform the duties for the present salary, "so if Dr. Brady did not like the office he might give it up." This line of argument prevailed. Dr. Brady is left either to resign or do a quarter's work for something like 10*s*. We cannot trust ourselves to say how we regard such conduct in guardians, whether we think of the poor or of the medical officers. The reverend gentleman should at least have told his colleagues that the population, which was 500 when the salary was fixed, is now nearly 5000, and instead of using his influence to perpetuate a most contemptible and indefensible pittance, he should have remembered and reminded his fellow guardians that the labourer is worthy of his hire.

FACILITIES FOR POISONING.

A RECENT case of suicide by poisoning, which we will not more pointedly indicate, has again painfully illustrated the insufficiency of the protection afforded by existing statutes against the sale of poisons to persons who are unfit to be trusted with these agents. It is a deplorable and anomalous evil that any man or woman of adult age should be able to walk into a druggist's shop and purchase without restriction a potent agent like laudanum or chloroform.

Public safety requires the passing of a short Act to put a stop to this state of matters, and no delay should be incurred in enacting a suitable measure. We commend the subject to the earnest attention of the Legislature. Even in the presence of the overwhelming business on hand, this small but urgent reform might be rapidly effected.

THE LATE DR. SHEPHERD.

OUR readers will have observed that a fund is being raised to provide means to perpetuate the memory of this brave man, who fell in the discharge of duty at Isandula. The poor fellow had dismounted to assist his boy servant, who was mortally wounded, and another comrade, mounted, was waiting the result of the examination. The case was apparently hopeless, and the doctor was about to remount when an assegai, thrown by a pursuing Zulu, and plainly intended for the mounted man (who dodged and avoided it), flew past, and hit Shepherd in the loins, causing almost instant death.

The deceased has left a mother who was partly dependent on him for support, and is therefore now ill-provided for. This being the case, we may suggest to the committee the propriety of considering whether something in the form of a life annuity for the benefit of the lady would not be the best way of spending the sum collected.

It is as well to remind our readers that the subscription is limited to 10*s.* 6*d.*, so that the total sum collected should be large, and quite sufficient to purchase a comfortable income for the bereaved mother.

FACTORIES AND WORKSHOPS.

THE report on this subject, just issued as a Bluebook, is noteworthy as being the first compiled since the last Factory and Workshops Act came into operation, and also from the fact that it is the first report submitted by Mr. Redgrave since he was appointed Chief Inspector for the United Kingdom, after a very long period of work in association with Mr. Baker. The general results of the new Act which was summarised in THE LANCET of March 23rd, 1878, appear, from Mr. Redgrave's account, to be very satisfactory. The inspection of factories in the United Kingdom first commenced in 1833, when the work both then and for some years after, consisted in seeing that the hours of work were not exceeded, that the proper meal times were allowed, that children attended school regularly and were not employed at an illegal age, and that the buildings were properly limewashed at stated intervals. But now the sort of work performed has altered as well as extended. The old rules are still kept up, but are worked with much less difficulty, so that the inspectors are enabled to consult with the owners and chief superintendents on many things that in the early days of inspection could not, with the "hard and fast lines" drawn, have been touched with any reasonable prospect of success. Of course the chief changes indicated under the Act that has just come into operation, are those connected, directly or indirectly, with matters sanitary, including prevention of dust from grinding, escape of steam in flax factories, &c. The hours of work are more minutely regulated, the taking of meals in certain places is positively prohibited, as well as the employment of children in certain trades. Mr. Redgrave makes no observations as to the scale of fees for medical examinations, and we presume that it remains as originally drafted, an insult alike to common sense, the examiner, and the examinees. For, as we asked last year, can the Government and the ratepayers expect work of this kind to be well done when a less remuneration is allowed than that granted to veterinary inspectors under the Contagious Diseases (Animals) Act? Or is the life of a factory *employé* of less consequence than that of a horse, or of a bullock about to be killed and eaten?

RESULTS OF FIVE MONTHS' CLINICAL SURGERY.

AT the concluding lecture of his course of Clinical Surgery for the winter session 1878-79, after lecturing on excision of wrist and cases of epithelioma, hare-lip, and hydrocele, Dr. Joseph Bell reported on the results of the five months' work at the Royal Infirmary of Edinburgh. Two hundred cases had been brought before the class and lectured on. Eighty-five cases had been subjected to operations of various kinds; nineteen of these were amputations and excision of joints, five were amputations of the thigh, seven excisions of mamma, nine of other tumours, chiefly malignant. In three cases half the tongue was removed by the thermo-cautery. Tracheotomy, neurotomy, operation for necrosis, hare-lip, extravasation of urine, &c., made up the remainder.

Of the whole number eighty-four recovered and one died. The fatal case was complicated to such an extent that any other termination was practically impossible, as will be seen from the following. The patient, aged sixty-four, had been a drunkard for years. He was knocked down and run over by a train, and sustained the following injuries: His left arm was ground to fragments, and had to be amputated at the shoulder-joint; his left knee was dislocated completely (tibia and fibula forward); two ribs were broken on left side and three on right; his pelvis was fractured, and a large amount of blood was effused into the cellular tissue; his heart was large and fatty, and kidneys were degenerated, urine being albuminous. The immediate cause of death was rapid pulmonary œdema four days and a half after the accident, and after his shoulder-joint wound had healed.

Antiseptic precautions were used in many of the cases, and whenever they were used, were in strict adhesion to Mr. Lister's theory and practice. In many, however, ordinary surgical care, with extremely free drainage and freedom from tension, seemed to aid the successful issue. In all the nursing was most careful, skilled, and devoted.

THE USE OF FORCEPS IN MIDWIFERY.

THE discussion on the use of the forceps and its alternatives in lingering labour will be held at the meeting of the Obstetrical Society on Wednesday, May 7th. The subject is one with regard to which the opinions of a large part of the profession have changed within recent years. The importance of the subject and the reputation of Dr. Barnes, who is to open the debate, will ensure an interesting discussion.

REPRESENTATION OF THE QUEEN'S UNIVERSITY.

WE understand that steps are being taken by the governing body of the Queen's University in Ireland to obtain a representative in the Imperial Parliament. A committee was recently appointed to consider the matter in all its bearings, and, as a result of their deliberations, it has been arranged to memorialise Parliament in favour of the desired object.

LUNACY LAW AMENDMENT BILL.

A SPECIAL MEETING of the Midland Medical Society at Birmingham is in contemplation, with a view to the consideration of the important questions raised in Mr. Dillwyn's Bill. The discussion will be opened by an address from Dr. G. F. Bodington, and the medical proprietors of lunatic asylums will probably be invited to take part. The subject is one deserving full and important examination in the interests of the public and of the medical profession.

PORTRAIT OF THE LATE DR. MURCHISON.

OUR readers will be glad to know that on the day previous to his death Dr. Murchison sat to Mr. Fradelle, the well-known photographer of Regent-street, for his portrait. The likeness, which we have seen, is striking and truthful, and will, we believe, be a welcome souvenir of the distinguished physician it represents.

THE FORTY-SECOND HIGHLANDERS.

ONE HUNDRED men of the 42nd Highlanders arrived at Portsmouth on Tuesday last in H.M. troopship *Humber*, under the medical charge of Surgeon-Major G. E. Will, and proceeded to the Royal Victoria Hospital, Netley. Most of them had suffered from malarial fever contracted at Cyprus last summer, and they have been sent to England for change on the recommendation of the medical authorities at Gibraltar.

DEATH OF SURGEON-MAJOR JAMESON.

WE regret to notice the death of Surgeon-Major W. H. Jameson, M.D., Army Medical Department. Dr. Jameson entered the army on Sept. 30th, 1864, served for many years in the Royal Artillery in India, and was promoted to the rank of Surgeon-Major in September, 1876. The cause of his death was disease of the liver contracted during his service in India.

DR. BRADY, M.P.

WE are glad to learn that the condition of Dr. Brady, M.P., who has been suffering from a severe attack of illness, is somewhat improved. The malady has, we understand, been gouty and neuralgic, with great prostration.

IN pursuance of Sec. 34 of the 41st and 42nd Vict., cap. 74, an Order in Council was made on the 14th February last, relating to dairies, cowsheds, and milkshops. In consequence of this order the Metropolitan Board of Works found it necessary to draw up a code of provisions for all dairies and cowsheds in the metropolis for lighting, ventilation, cleaning, drainage, and water-supply, in compliance with the above-recited order. We have received a draft copy of the provisions, which seem to be loosely drawn up and bear an unmistakable impress of haste upon them. It is, however, satisfactory to know that they have been submitted to the Council of the Society of Medical Officers of Health.

AN election will take place on the 6th inst. at the Royal College of Surgeons in Ireland for fourteen examiners for the ensuing year—viz., eight to examine for fellowship and letters testimonial, three for the midwifery diploma, and a similar number to examine students as to their proficiency in general education. Considering the conservative nature of the electors, it is probable that little or no change will take place in the present composition of the examining board. On the 5th inst. a meeting will be held to receive the report of the adjudicators of the Carmichael essays.

THE medical staff in Natal is to be immediately reinforced by a detachment of medical officers, military and civil. Six officers of the Army Medical Department—Surgeons-Major Stafford, Anderson, Mally, and Hare, and Surgeons Fraser and Drury, are under orders, and will embark in H.M.S. *Orontes* on Friday.

SMALL-POX has broken out at West Ham, necessitating the reopening of the small-pox hospital, and a few days ago nineteen patients had already been taken in. Several cases are reported from Forest-gate and Canning-town.

THE *United Service Gazette* still continues its now "endemic" groan on the sad state of the Naval Medical Service, which is reduced to its present deplorable condition (according to our contemporary) by "the principle of having to recognise the claims of individuals. ..... The continuity principle is in full swing, and its pernicious effects are manifest in every rank of the medical branch," and so forth. But the *Gazette* is rather hasty in sketching out, and not happy in advising a remedy for, this lamentable state of things.

AT the recent graduation ceremonial which terminated the session at the Medical College of Ohio (Cincinnati), the degree of M.D. *honoris causâ* was conferred by diploma upon Dr. Dyce Duckworth.

THE annual meeting of the Poor-law Medical Officers' Association has, we are informed, been postponed from May to June, the day and hour of which will be duly made known to the members.

WE are asked to announce the resignation of Dr. Acland as physician to the Radcliffe Infirmary, after a long service of thirty-one years.

THE EXHIBITION OF THE ROYAL ACADEMY OF ARTS.

NOTWITHSTANDING the six weeks which artists say they have lost this winter from the unusual absence of sunlight, the exhibition of the Royal Academy is far from being below the average. It is eminently interesting, not so much, perhaps, from the presence of many specimens of overpowering merit, as from the large number of paintings which display evidence of careful work, and especially because, amongst the younger of the contributors, there are numerous signs of great promise. From the particular point of view which it is our business to occupy, there is not much to record. Portraits having a medical interest are scarce, and many members of our profession who have usually shown on the walls of the Academy the results of the employment of their leisure as amateurs are not represented this year. There is no work by Sir Henry Thompson, Mr. Seymour Haden, Dr. Eversbed, or Mr. Propert. There is, however, a marble bust of Mr. Spencer Wells by Dr. R. Liebreich, late ophthalmic surgeon to St. Thomas's Hospital, which deserves the highest commendation. It is an excellent likeness of the surgeon, and betrays no sign of emanating from the hands of an amateur. Dr. Liebreich's work, indeed, appears to us to be as good as the bust of Sir Wm. Gull by a sculptor of high repute, Mr. Thomas Woolner, R.A., is unfortunate. A portrait in crayon of the President of the Royal College of Physicians is hung so high that we were unable to judge of its merits.

The portrait of Mr. Gladstone, by Millais, is of extraordinary excellence, both as a work of art and from its absolute fidelity. It is, indeed, the great statesman himself to the life. Amongst the works which, besides this, are likely to attract most attention, is Mr. Poynter's large picture of "Nausicaa and her Maidens Playing at Ball," in which the attitude of the girl throwing the ball will meet with criticism. It is awkward, but perhaps on that account—the thrower being a female—the more true. Mr. Fildes has a powerful work, "The Return of a Penitent," which well illustrates Byron's lines,

> "And every woe a tear may claim,
> Except an erring sister's shame."

There is no picture in the Exhibition which will probably excite more interest than the "Evangeline" of Mr. Frank Dicksee. Exquisite in tone, full of pathetic interest, the painting is a marvellous achievement by a very youthful

painter, who steps at once into the front rank. Alma Tadema is well represented. Oulessand Gregory give us some admirable specimens of portraiture. Then there are some delightful bits of refined work by Marks and Marcus Stone, truthful and picturesque illustrations of the Venice life of to-day by Henry Woods, charming peeps of English scenery by Earle, a very powerful work, "The Attempted Assassination of William the Silent," by Claude Calthrop," and a thousand other beautiful things. There is a rare bit of truthful landscape painting by C. E. Johnson, which has received the compliment of being purchased by the Council, who have likewise conferred the like honour upon "Toil and Pleasure," by John R. Reid. A farmer's family are picking "turmuts" in a field, over which are scrambling sportsmen in pink, in pursuit of a fox. Which is the "toil," by the way? Our space will not allow of more than a mention of Mrs. Butler's (*née* Thompson) *à propos* illustration of Dr. Brydon, the sole survivor of the disaster in the Khyber Pass, arriving under the walls of Jellalabad. It is a work of great power, full of interest, which is only too painful.

HEALTH OF LARGE ENGLISH TOWNS
IN THE SEVENTEENTH WEEK OF 1879.

DURING last week 5428 births and 3664 deaths were registered in twenty of the largest English towns. The births exceeded by 246, and the deaths by 159, the average weekly numbers during 1878. The deaths showed a decline of 125 from those returned in the previous week; and the annual rate per 1000, which had been equal to 24·8 and 25·9 in the two preceding weeks, declined again last week to 24·9. During the four weeks ending on Saturday last the death-rate in these towns averaged 26·2 per 1000, whereas in the corresponding periods of 1877 and 1878 they did not exceed 25·3 and 25·8 respectively. This increase of mortality may be attributed to the unseasonably low temperature which has prevailed. The lowest rates in the twenty towns last week were 17·2 in Bradford, 18·6 in Portsmouth, 18·8 in Brighton, and 20·8 in Wolverhampton. The rates in the other towns ranged upwards to 28·2 in Norwich, 28·8 in Plymouth, and 29·5 in Leicester. The high death-rates in these four last-mentioned towns were not, to any considerable extent, due to exceptional zymotic fatality. The deaths referred to the seven principal zymotic diseases in the twenty towns were 426 last week, against 388 and 420 in the two preceding weeks. They included 147 from whooping-cough, 81 from scarlet fever, 80 from measles, and 38 from fever, principally enteric. The annual death-rate from these seven diseases, which averaged 3·0 per 1000 in the twenty towns, ranged from 0·7 in Wolverhampton, and 1·2 both in Bristol and Portsmouth, to 4·0 in Sheffield, 4·1 in Sunderland, and 4·2 in Oldham. Whooping-cough showed the greatest proportional fatality in Birmingham, Sheffield, and Oldham. The fatal cases of measles were most excessive in Salford and Newcastle-upon-Tyne. Two more deaths were referred to diphtheria in Plymouth, and 3 from fever in Newcastle-upon-Tyne. Small-pox caused 10 more deaths in London, but not one in any of the nineteen large provincial towns. The Metropolitan Asylum Hospitals contained 222 small-pox patients on Saturday last, against numbers declining steadily from 353 to 232 in the eight preceding weeks. No less than 50 new cases of small-pox were, however, admitted to these hospitals during last week, against 37 and 47 in the two previous weeks.

INDIA-RUBBER TRACHEOTOMY TUBES.

To the Editor of THE LANCET.

SIR,—I have heard from two sources during the past week that élastic tracheotomy tubes are being manufactured without a layer of canvas between the layers of rubber, and with so weak a connexion between the tube and its collar that these can be pulled asunder on making the slightest traction. A tube of this kind was, indeed, placed in my hands by a friend on Friday last.

If the question, however, were one merely of good or bad construction I should not, of course, have troubled you with any communication on the subject; but as the employment of these ill-made tubes would be always dangerous, and might be attended, if one broke while in use, by serious consequences, it seems my duty to ask you kindly to insert this note of warning.

The advisability of testing the strength and elasticity of the tubes may not occur to a surgeon who is using them for the first time.

I am, Sir, your obedient servant,

April 29th, 1879. W. MORRANT BAKER.

"PLAGUE IN RUSSIA."

To the Editor of THE LANCET.

SIR,—I have read Dr. Bareskoff's letter in your issue of April 12th with some interest. He speaks of the popular belief, that the infection of the disease known in Russia as Siberian plague is communicated by flies. No further remarks having appeared on the subject, I write to say that I believe the disease in question is a form of what is known as "malignant pustule," and that isolated cases are not rare in all parts of Europe.

I was staying in Germany during a hot summer about four or five years ago, when there was a regular panic all through the country on account of the number of deaths arising from, or attributed to, the bite of flies, which were supposed to convey the infection from deer, cattle, or other animals suffering from a disease called "milzbrand," and known in England as "the blood."

If I remember right, the cases were most numerous about Berlin or Potsdam, but several deaths were recorded from other parts; and there was an instance of the disease (though fortunately not fatal) in the house where I was staying, on the Lower Rhine, and we were greatly afraid that we might have been placed in quarantine by the local authorities.

I believe the disease is also well known in France, and attributed to the same cause. I know nothing of its presence otherwise in England, and, not being a medical man, will abstain from offering any comment on the above.

Yours, &c.,

W. F. KIRBY,
Assistant Naturalist in Dublin Museum of Science and Art.

April 22, 1879.

THE CAMPAIGN IN SOUTH AFRICA FROM A MEDICAL POINT OF VIEW.

(From a Correspondent.)

Concluded from p. 611.

I WILL now make a few remarks, which I will do with caution, and write only what I have seen.

As I before stated, during the years of drought, the class of fever with which we had to do was for the most part typhoid, with fatal cases presenting appearances pathognomonic of that disease; but now cases came under observation of what I and my *confrères* were wont to term "mixed fever," but which I would call "typhoid" fever *plus* South African climate. These cases came in from the town and neighbourhood, more especially from the line of railways in process of construction into the interior, where in cuttings men are exposed to intense heat and live in tents under no sanitary precaution whatever. This class of patients presented the following symptoms:—Intense headache, early cerebral disturbance, pain in the eyeballs and intolerance of light, pain in the neck and limbs, considerable liver and spleen enlargement and tenderness; constipation at first, and the tongue large, furred, and indented with the teeth. Uncertain at first what might be the type of disease with which we had to do, the usual chalk and soda and compound rhubarb mixtures were prescribed, fol-

lowed by the quinine with senna mixture. Then, perhaps, enteric symptoms would become more pronounced, the abdomen becoming tense and tympanitic; perhaps a few rose-coloured spots would crop out and disappear and reappear. The whole canal becoming sensitive to any food or medicine, we had to stop the medicine, and wait and watch. By and by hæmorrhage, more or less profuse, would supervene, with passing of clots like black-currant jelly—a bad sign, whether early or late; if early, it showed a profound complication of glands and blood; if late, it told on the strength and power of repair. Diet most strictly confined to four pints of milk; not even beef-tea was allowed. Temperature mounting high—say 103° to 104° every night; in some cases remaining at same height in the morning for a day or two—a grave symptom. When this occurred, although we knew that the bowels were in an intensely congested state, perhaps ulcerated, we generally found, on examination, that some lodgment of débris was present causing the mischief, and ordered a dose of sulphate of soda (two grains) and compound rhubarb powder (one grain); then, probably, the temperature would go down, and the chlorate of potash mixture with quina was resumed. The only real good was to relieve the bowel of its irritating contents by the mildest means possible, perhaps an injection of warm water, but nothing stronger than what we got in the course of practice to term our "fever purgative."

This state of things would go on from three to four weeks, when the welcome sign on the temperature-chart of gradual and daily decrease of morning and evening temperature, would inform us of the turning of the tide, and with a still carefully regulated diet, and now perhaps a little wine, our patient floated off the hidden rocks of the "danger point" of disease, into the level and placid haven of health and "good hope."

On the other hand, if matters were going wrong, the course of events would be of somewhat the following character—and I am now writing with a case I had in hand a few weeks ago still vivid in my memory, that of a robust young man, not more than three months in South Africa. My patient was living in an unhealthy locality, in a close lodging-house, on the bank of a slow-running river, polluted by all sorts of town débris. I saw him in his little room, which looked out on the stream, on two occasions, and told the landlady she had better get him into hospital at once, as I felt he was going to be very ill. Headache was intense; eyes suffused; face flushed; muscles of face quivering; tendons of arms in constant agitation; great anxiety; vomiting; and more or less purging. The woman took my advice, and the young fellow was admitted. No attempt at rallying took place at all. Cerebral disturbance continued and increased, the abdomen became tender and tense, rose spots appeared, liver and spleen area of dulness and percussion increased, early hæmorrhage of black-currant jelly clots came on, then stopped, then came on again, and the poor young fellow died rapidly in a state of collapse with coma and universal cold sweat, the abdomen not being blown up or tense to any marked degree. In such a case a post-mortem examination was by no means to be neglected, and it was with much interest that it was made. The termination by early collapse suggested the idea of perforation of the gut, but what we saw was the following:—Liver and spleen large and darkly congested; the small intestines plum-coloured as they lay *in situ;* no perforation had occurred; no fluid in the peritoneal sac; both lungs pervious to air, but very dark and congested. The right heart contained a few ill-formed black clots; general stain of blood on light surface like prune-juice. The whole canal was removed, cleaned by stream of water from the cistern being allowed to flow through it, and then slit up from end to end. As the intestine lay cleaned and exposed on the post-mortem table I was much struck with the appropriateness of the more suggestive names for the disease than typhoid—viz., "dothienenteric," from, I believe, *dothien* (a pustule) and *enteron* (intestine). It looked like an eruption of large small-pox pustules throughout the small intestine. The large intestine was also deeply congested, but no ulcerations were present.

Here, then, I think, we had a case of intense enteric fever occurring in a robust new-comer, *plus* heat and malaria of a South African summer. The patient died, not from collapse of perforation, but struck down by the fever, before the intestinal glands had time to ulcerate down to their peritoneal covering. Holding the intestine up to the light, you could see through the almost transparent ulcerated spots, but the peritoneal coat had not given way anywhere. From these notes it will be seen how grave a disease is enteric fever occurring in a hot, moist climate. New-comers at the diamond-fields, I have been told, are very prone to this malady, and I have no doubt that the experience of the medical men there has been very considerable; but it requires the convenience of a well-appointed post-mortem room to confirm one's diagnosis of these cases. As before remarked, the troops now on their way out will be on duty chiefly in the splendid winter climate of South-east Africa. Should the campaign be prolonged into the summer season, I am afraid the experience I have written will have to be gone through by my gallant *confrères* in the service.

To sum up, then, what I think my experience has taught me of fevers in South-east Africa: the medical officers may expect to meet with cases of bilious remittent, differing, not in kind, but in degree, from those of which one end of the scale is exemplified in the Kaffir, who died rapidly with coma, black vomit, and suppression of urine, down to those milder cases which the quinine and senna mixture seemed to put right in a week or two, and those in which the long-continued congestion resulted in liver-abscess, dysentery, or the development of tubercle in any organ of the body.

Our treatment of "typhoid" or "dothein-enteric" differs, I venture to remark, from cases occurring in a colder climate in the necessity of purgatives. Whenever the temperature goes up, a close observation will show either a bowel obstruction requiring relief, or lung or heart complication, when the usual chlorate of potash mixture with quina must be temporally omitted, and perhaps ammonia and chlorate of potash given, with active counter-irritation by turpentine stupes or linseed and mustard poultices. A *sine quâ non* in the conduct of these cases is an adherence to a rigid diet of milk, and as long as the temperature remains high you dare not allow a particle of solid food, and, if purging be a prominent symptom, not even beef-tea. In cases which may occur in the field the supply of milk may be uncertain. In the absence of milk, the following food, extensively used by the Boers in cases of bowel complaint and feeding of infants, I know to be of service:—A quantity of flour is to be tied up light in a pudding cloth, boiled for six or eight hours, when it will be found that a thick pellicle will have formed on it. This is to be peeled off, and the inner mass baked in a tin dish in an oven until it has assumed a light biscuit brown. This may be kept in stock and cooked as you would arrow-root or maizena, with the addition of condensed milk, perhaps flavoured by a few cloves or cinnamon, and a suspicion of good French brandy. It affords a nutriment of great value, and most suitable in case of fever or dysentery. Meat broths often purge; chicken broth, very useful and palatable, is not always to be obtained. Excess of diarrhœa I find best restrained by small doses of, say, five to eight minims of solution of morphia in each dose of chlorate of potash mixture, watching its effects on the nervous system.

Being a pupil of the late apostle of alcoholic treatment of diseases, Dr. Todd, experience alone has taught me to be sparing in the use of brandy; only when there is a "shabby pulse" and a moist skin do I think a little good wine of any service. My very able colleague, Dr. Rubige, for a long time attached to the Port Elizabeth Hospital, used to lay it down as the result of his observation and experience, that the thoroughbred Kaffir or Hottentot never had typhoid fever. My own experience leads me almost to coincide with his opinion. During the whole time I have been at work here I can only remember two cases of purely enteric fever occurring in a Kaffir—one, some seven or eight years ago, whose small intestine I have in the museum, with distinct ulceration of Peyer's glands; the other, strange to say, occurred only yesterday, and a most minute and careful examination failed to detect any lesion except that most characteristic of typhoid fever;—both cases succumbing to high temperature, the fever killing before time would allow of perforation.

If typhoid fever be a disease whose germ or *vivum* requires a habitat or environment of filth, then I cannot imagine any human being in a more likely position to get it than the town Kaffir or Hottentot; but he does not suffer, as a rule, from this disease. If I recollect aright, there was, a short time since, a very interesting paper on typhoid by a medical officer in China, published in "Braithwaite's Retrospect," showing the marked absence of typhoid in natives, surrounded by every possible condition which is generally supposed to favour the development of the disease. My

experience seems a parallel one as regards the true Kaffir and Hottentot. Bastards are not impervious to its attacks. The favourite victim is the young new-comer, and then, *plus* South African climate, it constitutes a disease which takes all the care and experience of the physician to combat, and one's memory is clouded by not a few sad defeats.

I send you these details, conscious of their defects of arrangement and matter; but if my experience shall be the means of assisting any of my brethren at a time when they find themselves hand to hand with an enemy more subtle than a Zulu, I shall feel that, although a non-combatant, I shall not have written in vain.

There are other subjects—as pneumonia, rheumatism, dysentery, ophthalmia, use and abuse of alcohol, &c.—which, occurring in a South African climate, are worthy of attention, and, if time and opportunity allow, I will write again.

F. E.

Port Elizabeth, South Africa, March 28th, 1879.

Obituary.

CHARLES MURCHISON, M.D., LL.D. EDIN., F.R.S.

CHARLES MURCHISON was descended from an old Aberdeenshire family, and closely connected with the celebrated geologist of this century, Sir Roderick Murchison, after whom his eldest son is named. He was born in Jamaica in the summer of 1830, and consequently was only in his forty-ninth year at the time of his decease. His father practised as a physician, but subsequently retired and settled with his family at Elgin, in which town we believe Charles Murchison received his early education. In 1845 he commenced his studies at the University of Aberdeen, where he obtained the first prize in Greek; he also studied botany the same year under Professor Macgilavrey. In 1847 he spent his first winter session at Edinburgh, and was soon noted for the neatness of his manipulations in the dissecting-room and his diligence and ability as a student. In the summer session of that year he studied botany with great earnestness, and went all the usual excursions. In one of these he visited Arran with Professor Balfour, and was a member of the famous Glen Tilt party when they were obstructed by the Duke of Athol, an event celebrated in poetry by Professor Douglas Maclagan. Murchison was an excellent botanist; he obtained the Balfour gold medal and the chief prize for the dissection of plants and for an herbarium. In the early part of December that same year he had an attack of typhus fever, but in spite of this interruption he carried off Dr. Allen Thomson's first prize at the end of the session. In the course of the next two years his reputation as a student continued to increase, and he received the first prize in surgery and the gold medal in midwifery. He passed the examination of the College of Surgeons of Edinburgh in the summer of 1850, when he was little over twenty years of age. In 1848 he read his first scientific paper before the Botanical Society of Edinburgh, "An Account of certain Glandular Structures found on the Leaves of various Plants." It was well illustrated, and his friend Dr. Dobie, who was present on the occasion, considers it as perfect and complete a piece of work as any he ever accomplished. He became Mr. Syme's house-surgeon in 1850, and in August, 1851, he graduated with the highest honours, receiving the graduation gold medal for his thesis "On the Pathology of Morbid Growths," illustrated by numerous drawings of the microscopic structure of these tumours which he had examined during the period of his house-surgeoncy. During the same year Murchison succeeded Dr. Thomas Keith as Physician to the British Embassy at Turin. While abroad he acquired a fair knowledge of Italian, and learned to speak French with fluency. In 1852 he returned to Edinburgh to take the post of resident clinical physician. His tenure of this post was, however, disturbed by a disagreement with one of the professors, which ended in Murchison leaving the Infirmary; the Professor subsequently, however, made an apology. Murchison after this went over to Dublin to study midwifery at the Rotunda Hospital, and afterwards to Paris, and from thence to India in the Company's service. Soon after his arrival he was appointed Professor of Chemistry to the Medical College at Calcutta. In this appointment his scientific training in this subject, under Dr. William Gregory, stood him in good stead; and it was remarked that in carrying out the duties of that office his clearness of exposition was only equalled by his perfect success in conducting experiments. He subsequently was attached to the medical staff of the army in Burmah, during which time he made those observations on the climate and diseases of that country which he subsequently embodied in a contribution to the *Edinburgh Medical Journal*.

Dr. Murchison returned to England in 1855, and at once passed the examination for the membership of the Royal College of Physicians, London, and obtained an appointment as physician to the Westminster General Dispensary, and as demonstrator of anatomy, afterwards as lecturer on botany, at St. Mary's Hospital. On the 4th of December of the same year he made the first of his numerous communications to the Pathological Society on a "Case of Talipes Equino-varus with Disease of the Knee-joint," from a subject sent to the medical school of St. Mary's Hospital for dissection. During the tenure of his lecturership on botany at St. Mary's he contributed some important observations in this science to the Edinburgh Botanical and Linnean Societies. His first professional residence was at 21, Upper Seymour-street, which he changed to 31, Sackville-street shortly after his appointment in 1856 as assistant-physician to King's College Hospital; and, finally, in 1859 he removed to 79, Wimpole-street, where he permanently settled.

Early in 1860 Dr. Murchison resigned his appointment at King's College Hospital in consequence of the illiberal policy of the Council of that institution, and to which no man, with the feelings of independence and honour Murchison possessed, could have tamely submitted. In this step he was supported by others of his colleagues. Two of the emigrants, Murchison and Hulke, found a welcome at the Middlesex Hospital, and Murchison was appointed assistant-physician to that hospital the same year he left King's College, and held it till his promotion as full physician in 1866. In addition to these appointments he was working indefatigably at this period at the London Fever Hospital as assistant-physician.

It was characteristic of the whole tenor of Murchison's career to take the "instant way," to seize the present occasion and throw himself with his whole energy into the work immediately before him. Thus we have seen, while house-surgeon at the Edinburgh Infirmary, he utilised the material furnished by the operating theatre for his graduation thesis, which obtained for him the gold medal of his year. His contribution on the Diseases and Climate of Burmah was the result of his Indian experience. His work in the dissecting-room at St. Mary's Hospital is marked by the elaborate description of the anatomical details of the case of talipes varus he brought before the Pathological Society at that time, and his lecturership on Botany by the numerous botanical papers to the journals and societies. So after six years' service at the London Fever Hospital he published his great work on the Continued Fevers of Great Britain, in which the clear and logical expression of his mind is fully manifested. In its construction he mainly followed the example of Louis, and endeavoured, whenever practicable, to reduce his "observations to a numerical expression." A second edition of this truly classic work appeared in 1873. Again, the opportunity afforded by his position as full physician to the Middlesex Hospital enabled him, in 1868, to bring to a conclusion his Clinical Lectures on Diseases of the Liver (which he inscribed to Professor Syme), which had already appeared in part in the pages of THE LANCET. A second edition of this valuable work was published in 1877, to which were added the three Croonian Lectures on "The Functional Derangements of the Liver," which he had delivered before the Royal College of Physicians in 1874, and which at once appeared in

full in THE LANCET, and not, as claimed by a contemporary, in its columns a year before their delivery. This work he inscribed to W. Murray Dobie, physician to the Chester Infirmary, in token of a "friendship of thirty years."

The year 1870 saw him entered on the full tide of professional success, and from this time his practice continued rapidly to increase. So busy was he last Easter that he was unable to snatch the few days' rest that he had made customary at that period of the year. In 1871 he was appointed full physician to St. Thomas's and joint lecturer on the Principles and Practice of Medicine, and he at once came to the front as the great clinical teacher. His teaching was a reflex of his singular lucidity of thought and expression, which not only attracted the student with its distinctness and brilliancy, but furnished him with a method on which to found his own facts and observations. His inaugural address as President of the Pathological Society in 1877 will always be remembered as a terse and methodic exposition of the lines on which modern pathological research should be pursued. Such were his chief professional qualifications, and had he lived he might have looked forward with confidence to the highest possible public recognition of his services to the State, an earnest of which he had received in his appointment as Physician in Ordinary to the Duke and Duchess of Connaught.

The story of Murchison's life would, however, not be complete without a reference to his holiday times. To him the physician's autumn holiday was a reality. The anxieties of professional toil were cast aside so perfectly that no one who saw him whipping the mountain stream with his fly-rod would imagine that the fisherman was the grave and reserved physician he had met in London a few weeks previously. His truest delight of late years was to seek some quiet nook in Scotland, where the members of his family might mingle with those of his dearest friend, who always endeavoured to pass the holiday with him. On these occasions Murchison and the young people were wont to explore river, lake, hillside, and torrent, plain and shoreline unveiling nature's secrets wherever they were likely to be hid. Herein lay the charm of his cultivated mind. His marvellous stores of botanical knowledge, and information in natural history generally, added largely to the enjoyment and profit which he and his friends derived from these excursions. To a cultured mind of such discipline and grasp as his nothing was insignificant. His thorough acquaintance with geology—a subject he had minutely studied, as Jamieson's pupil, in his student days—fitted him for the herculean task of editing Dr. Falconer's geological writings, perhaps the most laborious work he ever undertook. During the progress of the work he frequently took occasion to consult an intimate friend and former fellow student respecting difficult questions of synonymy, &c.; and from beginning to end he bestowed the utmost pains to ensure accuracy in the minutest particulars. This also seems the place to notice his efforts to found the Syme Fellowship in the University of Edinburgh, and to have a bust of his revered master placed in the university library.

With regard to the history of the fatal disorder that terminated this great and useful life, it was at the end of July, 1872, that he first informed his most intimate personal friend that he had serious disease of the heart (aortic incompetence). His anxiety at this discovery can easily be conceived, and his friend readily obeyed his summons and visited him for a few days at Filey—a visit that proved a source of great gratification and comfort to him. Later on, in August, Dr. Burdon-Sanderson also visited him at the same place, and found him better; and it was then decided that he should return to town and resume his work, but not his hospital duties till October. The question of his going away for a lengthened time to the Continent, as an ulterior measure, was also discussed, but the final decision was postponed till after he had got back to London. On his return to town, he submitted his case in great detail to Dr. Peacock, and, after a mature consideration of his opinion, he finally abandoned the idea of going away for a year's rest, being chiefly influenced by feeling how difficult it would be for him to lead a life of idleness. His determination once made, he steadily adhered to it, and, beyond his usual autumn holiday, relaxed nothing of his private or public duties. Dr. Murchison himself attributed in great measure the cardiac mischief to an attack of typhus fever he had in London when physician to the Fever Hospital; and he favoured the view originally suggested by Dr. Sibson, and considered by Dr. Peacock as the probably correct one, that the incompetency was aortic, and not valvular, in its origin.

In personal appearance Dr. Murchison was slightly below middle stature, and, before the commencement of his fatal illness, of sturdy, robust build, with the appearance of one well-fitted to bear the trials and struggles of life. His head was large, the forehead high and full, the hair black, and eyes of surprising brilliancy and power of expression. In manner he was reserved, sparing of speech, and free from that impulsiveness which hails the ordinary acquaintances of life as esteemed friends. To those who knew him intimately, however, his full character was revealed, and they found in him a depth of love, tenderness, and sympathy, together with a constancy and devotion in friendship, rarely found in more demonstrative natures. His most intimate friends were Dr. Dobie (of Chester), Dr. Burdon-Sanderson, and Dr. Cobbold. He attached himself particularly to the younger members of the profession with whom he was brought in contact, and he never spared time or trouble in assisting them with his counsel and sympathy, and in the troubles, doubts, and anxieties which beset them at the outset of their career. He died, as we stated last week, in the midst of his work, and the last act of his life was apparently an attempt to place on record a clinical fact, for on the top of the escritoire by which he had fallen was found a clinical map of the chest and abdomen. It is probable that he sought to make some observation on this point relating to the patient that had just left the consulting-room, and had removed the diagram from the drawer in the escritoire for this purpose, and was stooping down the second time to close the drawer, before returning to his desk, when the fatal syncope occurred.

He was buried in the cemetery at Lower Norwood on Saturday afternoon, the 26th of April. At his own desire, the funeral was as plain as possible. No announcement was made in the press as to the date or place of interment, and consequently a large gathering of the profession, who would otherwise have attended to render their last tribute of respect, was prevented. The funeral *cortège* consisted, therefore, only of his wife and children and his brother-in-law, Mr. Bickersteth of Watford, and Mr. Bickersteth of Liverpool. But a few of his more intimate personal friends, with a considerable representation of the staff of St. Thomas's Hospital, and a large gathering of students of that hospital, were assembled in the chapel at the cemetery. The Very Rev. the Master of the Temple, Dean of Llandaff, read the psalm and epistle in the chapel, amidst a most impressive silence, and the Rev. E. H. Bickersteth, of Hampstead, concluded the service at the grave. At the conclusion of the ceremony, after the relatives had departed, the students clustered round to take a last look at the coffin that contained their respected teacher, which was thickly covered with wreaths and crosses of flowers.

The coffin was placed in an ordinary earth grave, in which he had previously buried two of his children. Beneath a plain white marble cross he had caused the words "Post mortem vita est" to be engraved. Whilst these words briefly but plainly record his faith, we would add, as regards his work on earth, the motto of the Society to which he gave such devoted service, "Nec silet mors."

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on April 24th:—

Burnett, Robt. William, M.D. Aberd., Nottingham-place.
Drewitt, Frederic G. Dawtrey, M.B. Oxf., St. George's Hosp.
Mickle, Wm. Julius, M.D. Toronto, Grove Hall, Bow.

On the same day the following gentlemen were admitted Licentiates of the College:—

Atkey, William Thomas, Chichester.
Baines, Allen Mackenzie, M.B. Toronto, Storey's-gate.
Balls, James, King's College Hospital.
Barron, Herbert George, Southport.
Batson, William Lascelles, Guilford-street.
Biggs, John Maundy, Dallington, Hawkhurst.
Birch, Richard Charles, Royal Infirmary, Manchester.
Boissier, Arthur Henry, Clifton.
Bousfield, Edward Collins, Bedford.
Corder, Sheppard Ransome, Percy-circus.
Gardner, John Twiname, Ilfracombe.
Milles, Walter Jennings, Wyndham-place.
Poland, John, Blackheath.

Smith, Ernest Frederic, Torpoint, Devonport.
Wadham, Frederick, Milnor-street.
Warwick, Percy, St. Helen's-road, Hastings.
Williams, Miles Melbourne, Royal Infirmary, Manchester.
Williams, William Roger, Enfield.
Williamson, Robert Isherwood, St. Thomas's Hospital.
Wood, Percy Moore, Eglantine-road.
Woodcock, Robert Fraser, University College Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on April 24th:—

Bedford, R. Thomas, Denton, Sussex.
Byers, J. William, M.D. Dub., Belfast.
Dalton, Norman, L.S.A., Demarara.
Gulliver, George, M.B. Oxon., Canterbury.
Jones, A. Edward, Pontypridd.
Logan, F. T. Bishop, Bristol.
Nankivell, J. Howard, York.
Parkinson, G. William, Sackville-street.
Pierson, A. Henry, Lee, Kent.
Scott, R. J. Herbert, Kensington.
Stokes, H. Fraser, Compton-terrace, Highbury.
Sykes, W. Ainley, Golcar, Yorkshire.
Wiles, F. William, L.S.A., Wotton-under-Edge.
Williams, W. D. Campbell, Sydney, New South Wales.

Of the 68 candidates examined on April 22nd, 23rd, and 24th, 54 passed to the satisfaction of the Court and obtained their diplomas; 4 passed in Surgery, and when qualified in Medicine will be admitted Members; the remaining 10 failed to reach the required standard, and were referred for six months' further professional study. Eight candidates who had passed in Surgery at previous examinations, having subsequently obtained a medical qualification recognised by the College, were also admitted Members.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

Skene Keith, Geo. H. Mapleton, Christian L. Herman, James Altham, Wm. H. Dobie, W. H. I. Sellers, James O'Reilly, Arthur Thomson, J. B. E. Joseph, T. P. A. Stuart, and P. W. Maxwell, Edinburgh; Chas. E. Strickland, Henry J. Blakesley, Henry S. Swinson, William Richards, Frederic E. Daniel, Henry W. Smith, Gordon F. Nicholls, Andrew Fuller, and Jas. A. Unitt, Birmingham; Ernest A. Hirons, T. E. Flitcroft, John T. Davis, and George W. Till, Glasgow; James Maughan, Charles B. Garcie, William H. Wright, John H. Jones, William Huntington, and Arthur Jones, Liverpool; John J. Berry, Manchester; John E. Howe and Charles E. Wedmore, Cambridge; Wm. B. Rose and James P. Myles, Bristol; F. St. George Mivart, St. Mary's Hospital; Edward Ward and Thomas Horsfall, Leeds; A. M'Cormick, Edinburgh and Glasgow; H. G. Watson, William A. Shillito, and George Booth, Sheffield; John M'Mullan, Dublin; Algernon A. Cohen, Aberdeen; John Foggin, Newcastle-on-Tyne; Edward Tatham, St. Thomas's Hospital; Charles E. Paget, St. Bartholomew's Hospital; Peter Pigott, Guy's Hospital; Saml. Rabbeth, King's College.

CLINICAL EXAMINATIONS.—At the last pass examination for the diploma of membership of the Royal College of Surgeons, some very interesting cases were sent from St. Bartholomew's, St. George's, Guy's, and University College Hospitals—e.g., necrosis of the tibia, of the skull-cap, and of the bones of the forearm, hydrocele, lipoma, femoral aneurism, flat foot, enlarged cervical glands, fibrous growth from epididymis, anchylosis of the shoulder-joint, carbuncle at back of the neck, genu valgum, strumous disease of the elbow-joint, epithelioma, dislocated clavicle, syphilitic ulcer at back of the knee in a boy (hereditary).

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 24th:—

Biggs, John Maundy, Dallington, Hawkhurst.
Fallon, Joseph, Cowley-road, Brixton.
Farndon, Levi, Bramley-road, Notting-hill.
Gardner, John Twiname, Northfields, Ilfracombe.
Harrison, James, High-street, Windermere.
Hayward, John Davey, Grove-street, Liverpool.
Waclchli, Gustav, Berne, Switzerland.

The following gentlemen on the same day passed the Primary Professional Examination:—

Joseph W. Y. H. Lavies, King's College; John Geo. Stephen Lewis, Guy's Hospital.

At the Preliminary Examination in Arts held at the Hall on April 25th and 26th, 83 candidates presented themselves, of whom 30 were rejected, and the following 53 passed and received certificates of proficiency in General Education:—

FIRST CLASS (in order of merit).—1st: Thomas W. P. Lawrence and Lacy Ada Spilsbury. 3rd: Montagu Smith. 4th: J. Errington Ker and Alfred Paget. 6th: Redfern Fletcher, Hanway German, James Watson, Henry H. Wigg, and Leonard J. Willan.

SECOND CLASS (in alphabetical order).—Letitia H. Andrew, W. C. E. Arthur, E. J. G. Birkley, J. A. Bower, Alfred Bowles, W. H. Brenton, A. L. Curtis, E. E. Dalton, D. L. Davies, H. J. Dring, C. W. Edwards, J. Emery, W. H. M. Emmott, Adolphus T. Field, F. W. Foster, G. S. Gent, G. B. Goodall, J. H. Griffin, Samuel Heap, E. R. Hogarth, W. R. Hopkins, W. G. G. Jones, A. F. Keyworth, A. T. I. Lilley, Emma Littlewood, F. Morgan, Rees Morgan, E. S. Nutting, C. J. Parkinson, Thomas H. Pickstock, H. A. Power, A. J. Rayson, Edward Richards, Arthur Roberts, R. J. L. Rowley, E. W. Simmons, Julia A. Spilsbury, W. Stafford, E. Stewart, Frederick Todd, E. F. Trevor, E. Vallance, Edwin Volckman.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners held on April 18th and following day, the undermentioned obtained the Fellowship of the College:—

Fletcher, Robert Vicals. | Hayes, Richard Atkinson.

DR. HENRY R. HUDSON, the medical officer to the Oddfellows' Medical Aid Association, Newport, Mon., has been presented by the members with an address, and his wife with a pianoforte, upon the occasion of their marriage.

THE deaths registered in London last week were 1771 in number, and included 229 from the seven principal zymotic diseases, 88 of the 229 being attributed to whooping-cough, and 57 to measles. The fatality of diseases of the respiratory organs has further declined, being represented last week by 491 deaths, against numbers steadily decreasing from 705 to 505 in the five preceding weeks.

CARMICHAEL PRIZES.—The Council of the Royal College of Surgeons in Ireland will award the prizes, £200 and £100, to the successful essayists on Monday next, at half-past four. Portions of the essays will be read before the assembled College and students. Twelve have been sent in for competition.

DR. ACLAND.—At the Quarterly General Court of Governors of the Radcliffe Infirmary, Oxford, upon the reading of a letter from Dr. Acland resigning as physician, the following resolution was passed unanimously:—"That this Court cannot receive the resignation of Dr. Acland without expressing their unfeigned regret at his feeling compelled, by increased business, to relinquish the office he has so long held and so ably discharged. They also hope that the unexpectedness of the notice will be regarded by him as some excuse for the inadequate language they have employed to express their sense of the loss they will sustain by the withdrawal of his services."

HEALTH OF DUBLIN.—During the March quarter the births registered in Dublin amounted to 2490, or 31·7 per 1000; and the deaths to 3395, or 43·2 per 1000. Omitting the deaths (122) of persons admitted into public institutions from localities outside the district, the rate for last quarter was 41·6 per 1000. Zymotic diseases caused 670 deaths, which included 251 from small-pox, 119 from fever, 81 from scarlatina, 65 from measles, 55 from diarrhœa, and 25 from whooping-cough. The other principal causes of death were as follows:—Bronchitis 834 deaths, phthisis 278, convulsions (children) 195, pneumonia 129, heart disease 126, paralysis 81, hydrocephalus 50, mesenteric disease 37, cancer 32; whilst 67 were accidental, and 2 suicidal.

Medical Appointments.

BACON, T., M.D., C.M., has been appointed Resident Medical Officer to the Grimsby and District Hospital, vice Robbins, appointed Assistant Medical Officer to the Workhouse &c., Leeds Union.

BRUORTON, W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the No. 5 District of the Romford Union, vice Jordison, deceased.

BUTLER, G. H., M.R.C.S.E., has been appointed House-Physician to the Westminster Hospital, vice Elliott, whose appointment has expired.

CONRY, J., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Kilkelly and Kilmovee, co. Mayo, vice Blake, resigned.

DAY, W. W., M.R.C.S.E. & L.M., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the No. 1 District and the Workhouse of the Edmonton Union, vice Morris, deceased.

FORT, T., L.R.C.P., M.R.C.S., has been appointed Surgeon to the Police Force and Fire Brigade (Central Division), Oldham, vice Prestwich, deceased.

GARLIKE, E. W. B., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the No. 5 District of the Ware Union.

HOGG, R. B., M.B., C.M., & L.M., has been appointed Certifying Factory Surgeon for the District of Falkland, Fifeshire, vice Cameron.

INGLIS, A., M.D., has been appointed Physician to the Cheltenham General Hospital, vice Abercrombie, resigned.

LANGDON, T. C., F.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Winchester Urban Sanitary District, at £100 for one year.

LYDEN, M. J., M.D., C.M., has been appointed Medical Officer, Public Vaccinator, &c., for the Southern Division of the Castlebar Dispensary District of the Castlebar Union, co. Mayo, at £110 per annum and fees, and £15 per annum as Medical Officer of Health, vice Walsh, deceased.

O'CONNOR, G. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, &c., for the Northern Division of the Castlebar Dispensary District of the Castlebar Union, at £110 per annum and fees, and £15 per annum as Medical Officer of Health, vice Lyden, appointed to the Southern Division.

PEARSE, W. D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Launceston Urban Sanitary District, at £15 for one year.

RIORDAN, P. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Attendant to the Royal Irish Constabulary, Killeagh, co. Cork, vice Donovan, resigned.

ROPER, W. R., L.R.C.P.Ed., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer for the No. 5 District of the Chesterton Union, Cambridgeshire.

STORRY, F. W., M.R.C.S.E., has been appointed House-Surgeon to the Stroud General Hospital, vice Ewen, resigned.

THOMAS, O. D., M.R.C.S.E., has been appointed Medical Officer of Health for the Llanfrechfa Upper Urban Sanitary District, Monmouthshire, at £10 for one year, vice Cousins, resigned.

THOMPSON, J. A. B., M.B., C.M., has been appointed Medical Officer, Public Vaccinator, &c., for the Articlave Dispensary District of the Coleraine Union, at £90 per annum and fees, and £22 10s. per annum as Medical Officer of Health, vice Forsythe, resigned.

WESTROPP, Dr. C. G., has been appointed Medical Officer, Public Vaccinator, &c., for the Derrylin Dispensary District of the Lisnaskea Union, at £100 per annum and fees, and £15 per annum as Medical Officer of Health, vice Maxwell, resigned.

WITHINGTON, J. B., M.R.C.S., has been appointed Surgeon to the Yorkshire Institution for the Deaf and Dumb, vice Lister, deceased.

Births, Marriages, and Deaths.

BIRTHS.

DEAKIN.—On the 25th February, at Allahabad, the wife of Surgeon C. W. S. Deakin, F.R.C.S.E., B.M.D., of a daughter.

DENING.—On the 20th ult., at Cross-street, Tenbury, the wife of Edwin Deming, M.R.C.S.E., of a son.

FRENCH.—On the 19th ult., at Glasson, co. Westmeath, the wife of Edward Thomas French, F.R.C.S.I., of a daughter.

RAHILLY.—On the 24th March, at Malleapooram, Madras Presidency, the wife of Staff-Surgeon L. Roche Rahilly, A.M.D., of a daughter.

ROBERTS.—On the 23rd ult., at Talarvor, Carnarvonshire, the wife of John Roberts, M.D., of a daughter.

SALAMAN.—On the 4th ult., at Yerrowd, Central Jail, Poona, the wife of S. M. Salaman, M.D., Bombay Medical Service, of a daughter.

STUART.—On the 22th ult., at Hillside Cottage, Chirnside, Berwickshire, the wife of Charles Stuart, M.D., of a daughter.

WATSON.—On the 26th ult., at Chudleigh, the wife of John Adam Watson, L.R.C.P.Ed., of a daughter.

MARRIAGES.

BENTON—VENOUR.—On the 23rd ult., at Wyke Regis, Dorsetshire, by the Rev. John P. A. Fletcher, cousin of the bride, assisted by the Rev. H. C. Pigou, Rector of the Parish, Samuel Benton, of Bennett-street, St. James's, Surgeon, second son of Philip Benton, of Wakering Hall and Beauchamps, in the County of Essex, to Caroline Isabella, youngest daughter of the late Walter Askell Venour, Esq., H.E.I.C., B.M.S.

BULL—ANDERSON.—On the 24th ult., at Shenley Church, by the Rev. W. F. Short, Warden of St. Paul's College, assisted by the Rev. Kitelee Baily, of Old Bradwell, and the Rev. James Fairbrother, of Shenley, William H. Bull, L.R.C.P.L., M.R.C.S.E., of St. Oswald's House, Stony Stratford, to Louisa Jane, eldest daughter of the late Alexander Stevenson Anderson, Esq., of Glasgow, and cousin of James Waddell, Esq., of Shenley House, Stony Stratford, Bucks.

CREED—MANN.—On the 28th ult., at the Church of "Our Ladye Star of the Sea," by the Very Rev. Canon North, assisted by the Very Rev. Canon O'Halloran, Charles Philip Creed, M.R.C.S., L.R.C.P., of Rathkeale House, Girdler's-road, West Kensington-park, eldest son of Thomas Creed, M.D., of Crooms-hill, Greenwich, to Susan Mary, eldest daughter of Robert Mann, of Burney-street, Greenwich. No cards.

ELKINGTON—LOWE.—On the 30th ult., at St. Mark's, North Audley-street, London, by the Rev. J. W. Ayre, Vicar, and the Rev. John Durst, Vicar of St. Margaret's, King's Lynn, Herbert Frederick, eldest son of Frederick Elkington, Esq., of Moseley Hall, Worcestershire, to Thomasine Jessie, daughter of John Lowe, M.D., of King's Lynn.

LAWRENCE—HUDSON.—On the 4th March, by special licence, at Mossel Bay, Cape of Good Hope, by the Rev. W. F. Taylor, Thomas George Lawrence, L.R.C.P.L., M.R.C.S.E., of George Town, to Saidie Maria, eldest daughter of the Hon. J. F. Hudson, of Mossel Bay.

MEARS—BARTHOLOMEW.—On the 17th ult., at Duntarvie, Winchburgh, by the Rev. David Williamson, William P. Mears, M.R.C.S., Medical Tutor, Durham University, to Isabella, daughter of James Bartholomew, Esq.

DEATHS.

CLARK.—On the 26th ult., at Wellingborough, Thomas Clark, Esq., F.R.C.S. (fifty-nine years surgeon of that town), aged 83.

GOODISSON.—On the 22nd ult., at Enniscorthy, Samuel Goodisson, L.K.Q.C.P.I., aged 71.

HARRIS.—In February, at Maryborough, Queensland, William Harris, F.R.C.S.E.

MASSY.—On the 27th ult., at Southampton, Hugh Deane Massy, L.R.C.S.I., Surgeon-Major, Army Medical Department (on half-pay).

MILLER.—On the 22nd ult., at Eldon-square, Newcastle-upon-Tyne, James Miller, M.R.C.S.E., aged 64.

MORRIS.—On the 21st ult., at St. Owen-street, Hereford, Edward Morris, Ext. L.R.C.P.L., aged 63.

POTTLE.—On the 11th ult., at Bath-street, City-road, John Rowland Pottle, M.R.C.S.E., aged 67.

REDFERN.—On the 22nd ult., at Grove House, Ventnor, Isle of Wight, Charles Redfern, Surgeon (formerly of Manchester), aged 62.

RICE.—On the 29th ult., at Stratford-upon-Avon, Bernard Rice, M.B., M.R.C.S., aged 48.

ROSS.—On the 16th ult., Alexander C. Ross (of Brighton), M.D., Surgeon-Major, late of the Royal Scots Regiment, aged 50.

WILSON.—On the 20th ult., at Brumlish, co. Longford, Henry Wilson, late Staff-Surgeon R.N.

WOODTHORPE.—On the 20th ult., at Mortimer-road, Kingsland, Richard Woodthorpe, M.R.C.S.E., retired Staff-Surgeon, R.N., aged 94.

WYBRANTS.—On the 23rd ult., at Upper Bagot-street, Dublin, Joseph H. Wybrants, L.K.Q.C.P.I.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.
A Guide to the Practical Examination of Urine. By Dr. Tyson.
Lectures on Bright's Disease of the Kidneys. By J. M. Charcot.
Modern Medical Therapeutics. By Dr. G. H. Napheys.

J. & A. CHURCHILL, London.
Lectures on Syphilis of the Larynx. By Dr. W. McNeill Whistler.
The Diseases of the Rectum. By W. Allingham.

SMITH, ELDER, & Co., London.
Diseases of the Nervous System. By Dr. Althaus.

KEGAN PAUL & Co., London.
Freedom in Science and Teaching. By Ernst Haeckel.

H. K. LEWIS, London.
The Nature of Life. By Dr. Ralph Richardson.

SAMPSON LOW & Co., London.
Four Lectures on Static Electric Induction. By J. E. H. Gordon.

G. P. PUTNAM, New York.
Fasting Girls, their Physiology and Pathology. By Dr. W. A. Hammond.

H. RENSHAW, London.
A Practical Treatise on the Diseases of Infancy and Childhood. By the late Dr. T. H. Tanner and Dr. A. Meadows.
The Diseases of the Ear. By G. P. Field.

T. RICHARDS, London.
Notes for Students. Pathological Anatomy. Part I. By Dr. R. J. Lee.

SPOTTISWOODE & Co., London.
The Medical Register. 1879.

TAYLOR & FRANCIS, London.
The University of London Calendar for the Year 1879.

W. WOOD & Co., London.
Essays in Surgical Anatomy and Surgery. By Dr. J. A. Wyeth.

The Journal of Psychological Medicine and Mental Pathology. Vol. V. Part I. (Baillière, Tindall, & Cox, London.)—The Westminster Review; April. (Trübner & Co., London.)—Les Pestes, leur Histoire and leur Prophylaxie. Par le Dr. Van den Corput.—Notes on the Theory of Heat. By G. A. George.—Experiments with Living Human Beings. By Dr. G. M. Beard.—Infection-Diseases in the Army. By Prof. Rudolph Virchow. Translated from the German by J. James. (H. K. Lewis.)—Leçons Cliniques sur la Contracture du Col Vésical, faites à l'Ecole Pratique de la Faculté de Médecine de Paris. By Dr. Delefosse. (Baillière et Fils, Paris.)—On the Treatment of Pregnancy complicated with Cancerous Disease of the Genital Canal. By G. E. Herman. (J. E. Adlard.)—Memoirs of an Unappreciated Charity. Reprinted from Good Words. (W. Isbister.)—On the Permanent Removal of Hair by Electrolysis. By Dr. G. H. Fox. (Trow & Co., New York.)—Archiv für Augenheilkunde; April. (J. E. Beigmann, Wiesbaden.)—Index Medicus; March. No. 3. (F. Leypoldt.) Brain. A Journal of Neurology. Part V. (Macmillan & Co.)—Questions on Food and Clothing. By Mrs. W. T. Greenup. (Bemrose & Sons.)—Cinchona Culture in British India. By G. Bidie. (Higginbotham & Co., Madras.)—Boy's Own Paper. Part III. The Leisure Hour; May. Sunday at Home; May. (The Religious Tract Society.)—Galvanism in the Treatment of Sciatica. By Dr. V. P. Gibney.—The American Journal of Otology. No. II. Vol. I.—The Magazine of Art; May. (Cassell & Co.)—The Sunday Magazine; May. Good Words; May. (Isbister & Co.)—Public Houses for the People. By M. W. Moggridge.—Essays on the Treatment of Deformities of the Body. By F. R. Fisher. (J. & A. Churchill.)—Rough Notes on the Silver Crisis and on the Debased Money of India. By Isaac Gregory. (E. Wilson.)—On Capital Punishment. By J. Ellis. (E. W. Allen.)—The American Journal of the Medical Sciences; April. (Trübner & Co., London.)—Sowing and Reaping. A Word for Young Men. By the Rev. H. M. H. Aitken. (J. F. Shaw & Co.)

METEOROLOGICAL READINGS.

(Taken daily at 9 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 1st, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apr. 25	30·14	E.	44	47	84	58	39	..	Cloudy
,, 26	29·71	W.	47	50	91	65	42	0·06	Cloudy
,, 27	29·60	S.W.	45	49	93	61	43	0·03	Cloudy
,, 28	29·96	N.	44	45	84	55	40	0·06	Overcast
,, 29	30·33	N.E.	40	45	87	55	36	..	Fine
,, 30	30·28	N.E.	42	45	79	64	40	..	Cloudy
May 1	30·14	N.E.	39	41	70	51	38	0·01	Cloudy

Notes, Short Comments, and Answers to Correspondents.

THE BONCHURCH FOUNTAIN.

THE Rural Sanitary Authority having requested Mr. Wanklyn's opinion on the water from the Bonchurch Drinking Fountain, Mr. Wanklyn sent for a sample of the water, and has analysed it. He draws the conclusion that the water is a true deep spring water, and "perfectly devoid of sewage. The water is undoubtedly a wholesome water." Mr. Wanklyn's opinion is a very authoritative one. We must leave the chemists to reconcile their conflicting conclusions. The disease-conveying properties of water have generally been discovered by other than chemical methods of observation. Though a case has not been made out against the fountain, we approve of the searching investigation into its purity, and of the utmost vigilance in tracing every case of typhoid in such health-resorts. Such vigilance is the duty of every Rural Sanitary Authority and of its medical officer.

Dr. Kesteven.—The subject has been repeatedly discussed in our columns.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—Possibly on the "Audi alteram partem" principle you may be good enough to insert this letter; for I am most anxious that the truth with regard to the pay of medical officers of Her Majesty's British Medical Service in India may be widely known, and that no half-true statement made in your admirable journal may go unnoticed.

In the issue of February 8th, 1879, a correspondent, signing himself "Surgeon-Major," informs your readers that the pay of a surgeon-major in India is £1200 a year. Now, as all officers in India are paid in a coin which is not the standard in any country where money is counted by pounds, and which is not a legal tender above 40*s.* in England, he must convert his rupees at the exchange rate of the day into pounds before he can with truth say, "I have received so many pounds a year"; and as the pay of all surgeon-majors at, say, fourteen years, is under 800 *r.* a month, the exchange rate at the time "Surgeon-Major" wrote his letter would make the yearly pay of the officers I name £792; or if we even, for the sake of argument, reckon the rupee at 2*s.*, the total pay will be only £960 a year, instead of £1200, as stated by your correspondent. The fact is that a surgeon-major, to draw 1000 *r.*, which, at 2*s.* to the rupee, is £1200 a year, must have served for over twenty years in the department; and the condition he is likely to be in, and the length of time he is likely to draw the large pay, after twenty years' service, the greater part of it in climates most inimical to health, is left to the vivid imagination of those of your readers who may be disposed to enter a service where "all is not gold that glitters." Why, I should like to ask "Surgeon-Major," did he neglect to give the rate of pay to juniors Possibly he does not know that on joining, owing to the depreciated state of the rupee, a surgeon will draw £6 5*s.* a month, or £75 a year, less than he would have been paid nine years ago. Let him go with his rupees and ask the Government paymaster to remit them home; and when he finds that worthy official is permitted only to remit a small sum in each year, and that small sum is now fixed at the generous rate of 1*s.* 7½*d.*, he will, I am sure, though when perhaps too late, be able to judge which of the two, your correspondent "Surgeon-Major," or myself, spoke the truth. It has of late, I am sorry to see, been the rule to publish many imaginary grievances, to the exclusion of facts, which have tended to create a paucity of candidates in the Army Medical Department, and to place before the profession prizes which do not exist, as I hold is contained in the letter that has called forth this notice.

Yours truly,

India, March, 1879. TRUTH.

Mr. D'Arcy Sugden, of Queensland, in a lengthy communication, tells us that any deductions drawn from the vital statistics of that country would be worthless, because there are so many quacks and unqualified persons practising there. We hardly see the *sequitur* of the statement. Having no drunken (or drinking) nephews, we cannot comply with the request contained in the postscript.

SANITATION AT BERKHAMPSTEAD.

THE Local Government Board have been urging the local authorities of Berkhampstead to decide on a sewage scheme. We gave some details concerning this place in a recent issue. The death-rate is only 15·2 per 1000. Berkhampstead "set a glorious example," according to the *Bucks Herald*, by building a hospital for the isolation of infectious disease, which has served as a model to many other districts. The water-supply is also stated to be ample and pure. Still, if Berkhampstead is, as suggested, to be "recognised as one of the first sanitary districts" in England, the sooner the hints given by the Local Government Board about the sewage are adopted the better for the maintenance of this reputation.

Quærens.—On reference to the Students' Number of THE LANCET, published on September 14th, 1878, the information required will be found. There is no royal road into the profession.

ON THE TREATMENT OF RIGIDITY OF THE OS UTERI.

To the Editor of THE LANCET.

SIR,—The following notes may be interesting as an instance of the success attending the administration of antimony in small but frequently repeated doses in cases of rigid os from whatever cause.

Mrs. B——, aged twenty-three, primipara. I saw her on the morning of the 26th September last. On examination I found the os beginning to dilate, and slight pains present. The membranes were intact, and I left her in charge of an experienced nurse. On again visiting her some hours after, the pains I found still present, but rather irregular. I again examined the os, and found very little advance made since last visit. I saw her again in the evening, it being now altogether twelve hours since the commencement of labour. The os was at this time rigid, and no further dilatation had taken place, notwithstanding the strong and frequent pains. The lips had a hard, ring-like feel, very different from the semi-pulpy os sometimes met with. The patient's strength was good, with but little constitutional disturbance. I determined to give her antimony in small, frequent doses, and accordingly administered one-sixth of a grain of tartar emetic every ten minutes. A few doses thus given produced nausea, and after the fifth dose vomiting took place, when the administration ceased. On examining the os after a short interval, I found the rigidity gone, and the hard ring vanished. As soon as possible I ruptured the membranes, and safe delivery followed. The rapid effects of antimony in this case were surprising, and from a similar experience subsequently I believe that the small and frequent doses as here given are the best way of exhibiting the drug. Dr. Hall, of Montreal, recommends half a grain every half hour, but dangerous depression might in many instances supervene.

I remain, Sir, yours truly,

J. A. IRVINE, L.K.Q.C.P.I., &c.,
Surgeon to the Leeds Medical Aid Association.

Leeds, April, 1879.

THE CLERGY CO-OPERATIVE ASSOCIATION AND A MEDICAL DIRECTORY.

Mr. Meredith Townsend and others will see that this subject has not escaped our notice. Our indignation at the proposal is not much abated by a correspondence kindly sent us by the Secretary, in which a managing director tries to justify the proposal. Such a list would only supply the names of those who seek publicity and regard the profession as a trade. The number and warmth of the protests called forth by the proposal of the Association afford fresh proof of the strength of the professional spirit, and will not be without their use.

M.D.—It is impossible to give helpful information about the prospects of army surgeons until the new Warrant is out.

POISONOUS PIGMENTS.

To the Editor of THE LANCET.

SIR,—In your report of the meeting of the Medical Society of London on the 7th instant, my remarks upon the serious nature of the dangers arising from the common use of poisonous pigments are attributed to Mr. Henry Carr, C.E. I believe that gentleman was not present at the meeting; but as the suggestion to form a deputation to or memorialise Government to restrict the indiscriminate sale of poisonous pigments, whether as paints, dyes, or wall-paper colours, was made by me, and I am responsible for the statements I made in support of that measure, I trust you will allow the correction to appear in your next issue.

Yours faithfully,

H. C. BARTLETT, Ph.D., F.C.S.

Laboratory, Duke-street, Grosvenor-square, April 25th, 1879.

PRACTICE AT THE ANTIPODES.

M.D. wishes us to say, in correction, that 10*s.* 6*d.* per mile one way is the highest scale of fee he had ever heard of in Australasia. We can publish no more letters on this subject.

THE notice of *Dr. Pavy's* paper on "Further Researches on the Physiology of Sugar in relation to the Blood," read before the Royal Society on April 24th, is unavoidably postponed.

Mr. Head is thanked for his communication, for which, however, we cannot find space.

THE WATER-SUPPLY OF LONDON.

WE would commend to the notice of our readers the energetic action taken at Walthamstow with regard to water-supply. Mr. Tewson and Captain Pelly were the chief movers in the matter. These gentlemen proposed to the Local Board to have four samples of water taken from different parts of the parish and analysed, on the understanding that the Board would prosecute if the water was found impure; while they undertook to pay the cost of analysis if the water, on the contrary, proved to be wholesome. This suggestion met with the success it deserved. The Board could not do otherwise than consent to the proposition.

A. Z.—The following is the distribution of the examiners and the hospitals they represent:—At table A, Messrs. John Wood, F.R.S., of King's College Hospital, and W. Morrant Baker, of St. Bartholomew's Hospital; B, Messrs. Henry Power, of St. Bartholomew's Hospital, and Walter Rivington, of the London Hospital; C, Messrs. Christopher Heath, of University College Hospital, and T. Pickering Pick, of St. George's Hospital; and at table D, Messrs. J. Whitaker Hulke, F.R.S., of the Middlesex Hospital, and Arthur E. Durham, of Guy's Hospital. The only member of the Council on the Board is Mr. Timothy Holmes, of St. George's Hospital, the Chairman. All are Fellows of the College by examination.

Mr. G. A. F. Scoales (H.M.S. *Ready*.)—Some such story is told; but we cannot speak as to its truth.

Mr. T. Duke should refer to our advertising columns.

DRAINAGE-TUBES AND THEIR DISCOVERY.

To the Editor of THE LANCET.

SIR,—Having read in the letter of your Paris correspondent of the 19th inst., as well as in a subsequent note by yourself, that a certain M. Desprès angrily accuses Professor Lister of appropriating to himself, *inter alia*, the discovery of the drainage-tube of M. Chassaignac, and fancying that I had somewhere read of its use in the hands of others long before this gentleman was born, I looked into some old notes I had made on the point, and now subjoin the result for the information of all whom it may concern.

1. Narrating in a kind of autobiography, which he wrote, if I remember rightly, for the benefit of some poor relative or charity, the adventures of a Captain Creighton, who fought under Montrose or Dundee, in Scotland, and after describing the wounds which he (Creighton) had sustained in a fight at Airs-Moss, Swift represents him as speaking ("The Memoirs of Captain Creighton," Nimmo's edition, p. 533) of them as follows:—"My surgeon....having unfortunately neglected to tie a string to the tent of green cloth which he used for the wound, the tent slipped into my body, where it lay under my navel seven months and five days, and exceedingly pained me....the tent lying thus in my body made it impossible that the wound could heal, wherefore....*I ordered some pipes to be made in a mould, through which the thin corruption which continually issued out of the wound caused by the tent remaining in my body, might be conveyed as through a faucet.* These pipes I cut shorter by degrees, as I imagined the wound was healing at the bottom, till at last....the tent continuing still where it did, the pipes became too short for the use intended....Wherefore I made a coarse pipe myself, which was long enough; *this pipe, after the wound was dressed with brandy, always remained in my body till the next dressing*, and....it happened one morning, when the pipe was drawn out as usual in order to have the wound washed, the tent followed, to the great surprise of my father. Then I knew I should soon be well." The italics are, need I add, mine. Swift died, I believe, in 1741, after having been, as everyone knows, in a declining, if indeed it was not a doting, condition for some years previously, so that this paper was probably written between the years 1730 and 1735; and in either case, if this description—which I respectfully submit to the judgment of your readers—applies to drainage-tubes, or to something that answered the same purpose, then does the discovery belong not to M. Chassaignac, but to Captain Creighton.

2. Reading lately in the British Museum, for a purpose which may, with your permission, soon transpire through THE LANCET, I came across the following sentences in a very rare book about the death of Philip II. of Spain, which is called De Felici Excessu Philippi, Austrinci Hispanarum Regis....Scripsit Hispanice Cerverra Turrianus, Capell. Reg., &c., and now quote it for what it may be worth in the same direction. After describing the sufferings that were caused to the King by an abscess that appeared on his right knee, and enlarging on the patience with which he bore them, Cerverra says, p. 26: "Deinceps ciendo puri, quo mane et vespere scutellæ duæ replebantur, ut testatur Garcias de Onante, *chirurgica fistula opus erat, quæ ex admodâ locis remotis sanism educeret.*" And again, though this, it must be confessed, is far less to the point: "Cum jam ad finem ulcus pervenerit, testatur idem Franciscus fuisse necessarium, ut medicinæ adhibendæ, suram paullo attollerent quo defluenti labo viam facerent, qua ex re tantum dolorem rex consecutus est, ut cum iterum idem medici conarentur ad eundem effectum, simul ut alia naturæ curarent, postremo fassus sit ultra non posse pati." Whether the lifting of the leg, or the other measures here contemplated, for the purpose of making a better way for the escape of the abounding pus, implies the introduction of the tube, *alias* the *chirurgica fistula* mentioned above, or not, I cannot just now undertake to say, but the context warrants, I think, this assumption, and if so—and I here again throw myself on the indulgence of your readers,—then were drainage-tubes, or something so like as to be scarcely distinguishable from them, known as long ago as 1598 to the attendants of Philip the Second of Spain.

3. Whether, as I have just hinted, further research or reading will enable us to assign this discovery to its legitimate owner or not, I am, of course, unable to decide, and no office can well be less conducive to this kind of inquiry than that of a military surgeon in an out-of-the-way place like this. But I have a fixed idea—some may characterise it by another name—that many of the so-called discoveries of recent times were known ages ago, and I am unconsciously reminded of the Horatian dictum: "Vixere fortes ante Agamemnona multi."

Whenever I read or hear of discoveries in the domain of medicine or surgery in these our days, certain am I that the more I study any subject, the more do I find that it has been studied—nay, done to death—by others long before me; and to sum up in the words of Sir Henry Holland, "No science unhappily has abounded more in false statements and partial inferences, each usurping a place for the time in popular esteem," than has that of physic, and "it would seem as if the very complexity of the conditions necessary to sound evidence tended to engender acquiescence in that which is lightest and most insufficient for truth."

Your obedient servant,

WM. CURRAN, Surgeon-Major, A.M.D.

Station Hospital, Warrington, April 22nd, 1879.

ROYAL COLLEGE OF SURGEONS OF ENGLAND: PROFESSIONAL EXAMINATIONS.

THE following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the 68 candidates at the written examination for the diploma of Member of the Royal College of Surgeons of England on the 18th ult., when they were required to answer at least four, including one of the first two, out of the six questions:—

1. Describe the surgical relations of the male urinary bladder, when contracted and when distended.
2. Mention, in their relations to each other, the several parts which are divided in a circular amputation through the upper third of the forearm.
3. What constitutional symptoms would lead you to suspect strangulation of intestine? How would you investigate such a case?
4. Give an account of chronic enlargement of the prostate gland, its effects and treatment.
5. What is the *rationale* of the process of cure of aneurism? How may that process be induced by surgical means?
6. Describe the causes, symptoms, and treatment of acute iritis.

The following were the questions on the Principles and Practice of Medicine submitted to those candidates on the following day who had not passed any examination in Medicine:—

1. Discuss the morbid anatomy, symptoms, and treatment of diphtheria.
2. Give a chemical and pathological account of gall-stones. Enumerate the accidents to which they may give rise. And discuss the symptoms and treatment of these accidents.
3. Name the vegetable astringents of the Pharmacopœia; state their several special uses, and give the doses of their more important preparations. Write in Latin an unabbreviated prescription (with directions) for an astringent mixture for a patient suffering from chronic dysentery.

Omega will find the information required in the article on "Books," which appeared in the Students' Number of THE LANCET, Sept. 14th, 1878.

NITRATE OF AMYL IN SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—I think it my duty to make known to the profession my experience of the treatment of that distressing and frequently most obstinate malady, sea-sickness, by nitrate of amyl. I have now made several long sea voyages, and have very little faith left in any of the so-called remedies. I have tried chloral hydrate, morphia, ammonia, spirits of chloroform, and many other drugs, in some instances with temporary relief; in the majority of cases they have utterly failed, and in many others increased the feeling of nausea. Champagne, champagne and soda-water, and porter are, I think, no better. At the present moment I cannot call to mind how or where I first heard of the nitrate of amyl being used; at any rate I took a supply with me last voyage, determined to give it a trial upon the first opportunity; but I must confess I was rather sceptical about its virtues. On the outward voyage to Bombay we had fairly good weather, and no bad case of sickness; but on the way home I had every opportunity of giving it a thorough trial. In every case in which I administered it the relief was very marked, and in some cases it acted like magic, the patient assuring me that he felt perfectly well ten minutes after the inhalation. On one day I gave it in at least a dozen cases. The dose was three drops on a handkerchief or piece of lint. I found that the effects passed off in two or three hours, so that it was sometimes necessary to repeat the dose. Patients did not object to the smell of it; many, in fact, liked it.

I should like to hear if other surgeons have found it so successful as myself. Perhaps the cases least benefited by it were those of pregnant women, but these obtained great relief. I may also say that in no single instance was the administration followed by any ill-effects.

Yours truly,

W. A. DINGLE, L.R.C.P. Lond., &c.

P. and O. Co.'s S.S. *Mirzapore*, April 19th, 1879.

YELLOW FEVER AT ST. THOMAS, W.I.

WE have received from Dr. Bröndsted a letter referring to our annotation on this subject of the 19th ult., and are much astonished to learn from its contents that he finds it necessary to confess that he "denied most positively the truthfulness of the telegram" *simply on the* IMPRESSION *that Consul Stevens* MIGHT *be the author of it.* After this humiliating confession, we must leave the Governor of St. Thomas to determine whether the commercial prosperity of that island is to be further jeopardised by the journalistic vagaries of the "King's Physician," as at present represented.

Dr. S. T. Smyth.—No. The titles inconsistent with the qualifications held will be illegal.

Mr. Francis Scott, (Bridport.)—Next week.

SANITARY NEGLECT IN HOLBORN.

To the Editor of THE LANCET.

SIR,—Under the above heading a paper from your Sanitary Commissioner appeared in THE LANCET of April 12th, describing the sanitary condition of a house, or rather of two houses, in Queen's Head-court, Gray's-inn-road, and also stating that two cases of typhoid fever had occurred in this court, and that a man had been removed to King's College Hospital at my desire, and that this man had since died from what I thought to be typhoid fever, judging from his symptoms before his admission.

On the 19th inst., Dr. Gibbon writes a reply, confuting the statements as to the unhealthy condition of these houses, also casting doubts upon the nature of the woman's malady, and denying that the man D—— died from fever, but stating that his death was due to cerebral disease.

It is not my intention to go into detail respecting the actual state of the drains, even if I had the power to do so; but I may be allowed to state that the storing of the drinking-water over the closet, and the want of a separate cistern for the purpose of flushing the closet, are two conditions which I should be sorry to have existing in my house, and which Dr. Gibbon (in spite of his evident affection for Queen's Head-court) would be sorry to draw his water from for his dinner-table, even if he took up his abode there, which he told the Holborn Board of Works he should not object to do.

I will now describe the symptoms &c. which caused me to form the opinion that there were three cases of typhoid fever. About the girl there appears to be no contradiction. She was seen by myself on the 27th of November; her case was duly entered in my medical register, and her removal very strongly urged; but the objection of the parents was not overcome, and, so far as I know, cannot be overcome, and she was nursed by the sisters of St. Alban's, who most kindly kept a record of a temperature chart for me. She had the spots, the diarrhœa, and all the symptoms, but happily did well, and she was struck off my list on the 20th of December.

The mother of the girl fell ill on February 25th, and was seen by me, not through obtaining a parish order. She was then complaining of great headache; had been ailing for some days; had a dry, brown tongue, and a temperature of 103° Fahr. I saw her almost daily for five weeks, during which time she had well-marked rose-coloured spots, a good deal of delirium, and a most markedly typhoid temperature. I have daily notes of her case, with morning and evening thermometrical observation, taken for me by the nurses from the Metropolitan Nursing Institution in Bloomsbury-square; and if Dr. Gibbon will kindly look over them, I believe he will find sufficient evidence to overcome his two negative symptoms—namely, "cough" and "constipation," and which I would say do not in the least invalidate my diagnosis. As it is, seldom a case of typhoid fever passes through its stages without some bronchial irritation—a statement which is supported by the high authority of (the now unfortunately late) Dr. Murchison of this country, and the German author, Leibermeister, who says: "Catarrh of the smaller bronchi is of such frequent occurrence in typhoid fever that one is justified in attaching thereto a certain diagnostic significance."

Dr. Gibbon also says that the mother had not any looseness of the bowels. Now, although I fully admit that during the course of typhoid fever diarrhœa is a common symptom, still I can show in my case-book general typical instances of this disease in which there has not been any purging whatever, but the very reverse; and in point of fact this is so well recognised that one of the rules which I have acted on in my practice is not to interfere with this constipation. The very fact of its existence is often an indication of serious enteric complications.

The man D—— came under my observation on the 12th of March, when he complained of "headache, tiredness, vomiting, chills, and loss of appetite." He then had a temperature of 102°, and so certain did I feel that he had fever that I urged on him the necessity of getting to bed at once. I saw him for five consecutive days, during which time his temperature remained uniformly high, and he had constant delirium—a state I have found clinically to usher in typhoid fever in several instances. I then sent him to King's College Hospital, where he died soon after admission. I did not attend the autopsy; but from what I learn I can imagine the house-physician returning the death under the vague epithet of "cerebral disease," as he was forbidden to complete the examination. I may state I examined D——'s chest daily, and, with the exception of slight dry bronchial râles, I discovered no other evidence of lung disease.

I should not have troubled you with these details if I had not fully recognised the importance of setting this matter at rest. Your Sanitary Commissioner has with the best taste answered Dr. Gibbon's letter, and in justice to his statements and in fairness to myself, I have ventured to make these remarks. That these two poor people had typhoid fever I have no possible doubt, and that D——'s death was caused by the same disease I cannot for a moment question. I would also state that I believe the burning of sulphur in a room lately occupied by a typhoid patient to be an impotent effort to stamp out a disease which has its origin in decomposing animal matter, and which is not contagious. To eradicate the illisease, we must strike at its root, which we may discover in old cesspools, imperfect drains, and contaminated drinking-water, and not rely on the *instantia convenientes* of the sulphur-jar and the whitewash brush.

Yours &c.,

Guilford-street, W.C., April, 1879. T. ROBINSON.

VACCINATION AT NOTTINGHAM.

IN the last Annual Report of the Nottingham Dispensary, a fact respecting vaccination is recorded which should be made known as widely as possible. We gladly reprint it at the suggestion of Dr. Massey, Honorary Consulting Surgeon to the institution:—

"During four months—viz., November and December, 1871, and January and February, 1872, there were in this borough about 2317 cases of small-pox, and 362 deaths. At the early part of the epidemic 3689 persons were revaccinated, and, so far as could be ascertained, not one of these cases was attacked by the disease; that one of the most striking ways in which the efficacy of revaccination has been shown was in the immunity of the nurses and servants from the disease. The whole staff of the hospitals have been revaccinated, and have escaped the contagion, notwithstanding their continual contact with the unfortunate sufferers."

Mr. Alfred Renshaw.—The uniform is determined by the War Office. Application might be made to the adjutant.

S M. P. (?).—The article will be found in THE LANCET of April 8th, 1876, p. 525.

PUERPERAL CONVULSIONS.

To the Editor of THE LANCET.

SIR,—In answer to Mr. H. G. Sutton, I have been called upon to many suffering from the above, some of whom have been unconscious for from two to eight days, and had to be supported and treated by injections per anum, and have seen only one death, and that three weeks ago, which I believe would not have occurred but for the time lost in sending for a medical man. Bloodletting is the first measure to rely upon. If the convulsions are synchronal with the contractions of the uterus, then I rupture the membranes, use a Barnes's dilator if handy, and deliver with long forceps. Delivery must be accomplished. Chloroform I have found of great service; but I rely upon bloodletting, then delivering, chloroform being used if the convulsions are very frequent. The administration per anum of ten grains of bromide of potassium in a little beef-tea every hour until the albumen is sensibly diminished in the urine is of valuable service. Case 2 reminds me of a policeman's wife, minus the convulsions; but I was equal to the occasion when they did commence, for I delivered within two hours, and she did well.

I remain, Sir, yours &c.,

Plaistow, E., April 4th, 1879. JOHN VANCE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of April 19th I notice a communication from Mr. H. G. Sutton on the subject of puerperal eclampsia, the treatment of which consisted at times in bleeding, and again in the administration of an anæsthetic. He appends several questions which I would answer, from the standpoint of American practice, as follows:—

1st. Never bleed in puerperal eclampsia for the sake alone of relieving or curing the spasms.

2nd. Ether is one agent which will afford relief, and indeed in many cases immunity from further attacks. Indeed the rule is to have the ether at hand in any case where, from the presence of albumen in the urine, eclampsia is feared.

3rd. Delivery is *never* imperative, except in cases where the constantly-recurring spasms threaten the life of the mother or child. Usually, however, the careful but thorough administration of ether will render all artificial interference unnecessary.

I am, Sir, yours respectfully,

Ludburne-road, Brixton, April, 1879. EGBERT H. GRANDIN.

Leeds.—An unqualified assistant is as capable of coming under an ordinary contract as a qualified one, and is equally bound, by honour and law, to abide by any agreement he has come to, whether stamped at the time or later. A neighbouring practitioner who took into his service an unqualified assistant, bound by agreement with another practitioner not to practise in the said limits, would be guilty of an offence against good taste and professional ethics.

DANDRUFF.

To the Editor of THE LANCET.

SIR,—Can any of your readers advise me what is the best remedy for dandruff or scurfiness of the scalp? My patient has suffered from it more or less all his life, but it has lately been aggravated by an attack of measles. I have used alkaline remedies with and without glycerine, but without any decided benefit.

Yours faithfully,

Newark-on-Trent, April 22nd, 1879. M.R.C.S.

MEDICAL MEN AND THE CLERGY.

To the Editor of THE LANCET.

SIR,—There are, I believe, in all parts of the country medical men who make no charge to clergymen and their families, and clergymen who do not hesitate to accept their charity.

In the watering-place in which I reside there are medical men who profess never to take money from a clergyman, whether resident or a visitor. Whether their liberality is extended to ministers of dissenting bodies I do not know.

My father and an uncle were country parsons, with yearly incomes of about £600. They always paid their doctor, as they did everybody else to whom they were indebted.

May I presume to suggest to "W. E. P." that if he thinks fit to let his clerical friend off his bill, he should let it be clearly understood that poverty, not the profession, warrants the exemption.

I remain, Sir, yours truly,

April 28th, 1879. J. F. H.

To the Editor of THE LANCET.

SIR,—I have been in practice for the last twenty years, and never heard of it being the custom for medical men to attend the resident clergy or their families gratis. I have attended the clergy of all denominations in different parts of the world, and was paid my fee of one guinea a visit without sending a bill or asking for it. A clergyman or any person who will take up a medical man's time without paying his fee, is not only mean, but dishonest.

Will that clergyman, who in his experience of forty years has not paid a doctor, be charitable enough to officiate without payment? I am afraid he forgets his duty to his neighbour!—Yours faithfully,

Letterkenny, co. Donegal, April 28th, 1879. LANCASTER JOYCE.

To the Editor of THE LANCET.

SIR,—In reply to the inquiry of "W. E. P.," I have to state that I have known several instances where clergymen have had an understanding with their medical man that they should not be charged by him for medical services, in consideration of their touting for him for newcomers.

Yours obediently,

April, 1879. S.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Pavy; Mr. T. Bryant; Dr. Farr, London; Mr. S. Gamgee; Dr. Bristowe, London; Dr. Dyce Duckworth, London; Mr. Teevan; Mr. M. Baker; Dr. J. Williams; Dr. Allbutt, Leeds; Mr. G. B. Browne; Mr. Stone, London; Messrs. Barrand and Jerrard, London; Mr. Head, London; Mr Lamond, Glasgow; Mr. Lawton, Poole; Mr. Wallingford, St. Ives; Mr. Fradelle, London; Mr. Aldous, London; Dr. Bartlett, London; Mr. Lucas, Mahou, India; Mr. Richmond, Warrington; Dr. Rose, Chesterfield; Mr. Madden, Harlow; Mr. Sugden, Bundaberg, Queensland; Dr. Bogg, St. Leonard's; Messrs. Woollams and Co., London; Mr. Bacon, Grimsby; Surgeon-Major Blake, Queenstown; Mr. Head, Falmouth; Mr. Lewis, London; Mr. Ford, London; Messrs. Swan and Proctor, Newcastle; Dr. Illingworth, Highbury; Mr. L. Joyce, Letterkenny; Dr. Kesteven, Holloway; Mr. Cockell, Dalston; Mr. Stuart, Woolwich; Dr. Tatham; Lieut.-General Bourchier; Messrs. Cassell and Co.; Mr. Austin; Dr. J. W. Barnes; Dr. Ashton, Newtown; Mr. Scott, Bridport; Dr. Mapother, Dublin; Rev. A. J. D'Orsey; Mr. Alfreds; Mr. Wright; Mr. Collins; Dr. Bland; Mr. Pike, Loughborough; Dr. Duke, Rugby; Dr. Inglis, Cheltenham; Mr. Withington, Doncaster; Mr. Mumby, Glasgow; Dr. Powell; Mr. Smith, Woolwich; Mr. Windus; Mr. Sicard; Mr. Evans, Southend; Mr. Crawford; Mr. South; Dr. Iliffe; Dr. Moore, Lancaster; Dr. Barry, Settle; Dr. Byrne, London; Dr. Brendsted, St. Thomas; Dr. Robinson, London; Mr. C. Gordon, London; Mr. Hartley, Harrogate; Mr. P. Smith, Birmingham; Mrs. Kavanagh, Coventry; Messrs. Evans and Co., Liverpool; M.D.; M.R.C.S.; Omega; S.; Volunteer; A Surgeon; The Matron; The Secretary of the Royal College of Surgeons; Anglicanus; S. M. P.; J. L., Edinburgh; Secretary; The Registrar-General of Edinburgh; B.; R. M. P.; The Church of England Temperance Society; Quærens; The Epidemiological Society; A Foreign Doctor; Sanitas; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Brown, York; Messrs. Thomson and Ross, Aberdeen; Mr. Podley, London; Dr. Stone, Reigate; Mr. Evans; Dr. Brady, Derby; Mr. Williams, Talgarth; Mr. Walford; Mr. Haywood; Mr. Westley; Mr. Barrett; Dr. Lister, Ashton; Mr. Sawyer; Dr. Bantock; Dr. Foote, Oldland; Mr. Wenlock; Mr. Fisher; Mr. Eastes; Mr. Clarke, Wellingborough; Mr. Hutchinson; Mr. Johnston, Liverpool; Dr. Oeffner, Liverpool; Mr. Talford, Port Isaac; Mr. Williams, Swansea; Dr. B. Sanderson, London; Mr. Ball, Stony Stratford; Mr. Garland, Kensington; G. B.; B. B., Rhyl; M.D., Maidstone; M. J. R.; W. H., Williton; M. R.; L. O.; E. M., Edinburgh; M.D., Edinburgh; A. K., Cambridge; M.B., Whitchurch; A. B., Reading; A. M., Billericay; M. M., Coleraine; M.D.

Yorkshire Post, Illustrated Young People's Paper, Todmorden and District News, Leeds Mercury, Liverpool Mercury, Mid-Weekly Hampshire Independent, National Anti-Compulsory Vaccination Reporter, Daily Free Press, Western Morning News, Shrewsbury Chronicle, Brighton Guardian, &c., have been received.

Medical Diary for the ensuing Week.

Monday, May 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Annual Oration, by Mr. Walter J. Coulson. Subject: "Modern Aids to increased Accuracy of Diagnosis, and their influence in the Treatment of Disease"; to be followed by the usual Conversazione.

Tuesday, May 6.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Ernst Pauer, "On Schubert, Mendelssohn, and Schumann" (with Musical Illustrations.)
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. Report of the Morbid Growth Committee on Mr. Lister's Specimen of Encephaloid Cancer of the Scapula.—The following Specimens will be shown:—Specimen from the Horse; Discrete Sebaceous Tumour; Erythema Circumscriptum; Eczema; Growths in the Left Ventricle, with Embolism of the Brachial and other Arteries; Occurrence of Organisms under Antiseptic Dressings; Disease of the Skull and other Bones in Congenital Syphilis; Syphilitic Disease of the Skull (living specimen).

Wednesday, May 7.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens: Extra-uterine Fœtation, by Dr. Percy Boulton; Congenital Ventral Hernia, by Dr. Brunton; Unilocular Ovarian Cyst of both Ovaries, with Fallopian Tubes attached, by Mr. J. Knowsley Thornton.—Discussion on the "Use of the Forceps, and its Alternatives in Lingering Labour"; to be opened by Dr. Barnes.
EPIDEMIOLOGICAL SOCIETY.—8½ P.M. Mr. Robert Lawson, Inspector-General of Hospitals, "On the Course and Distribution of Cholera in India in 1876."

Thursday, May 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Dissociation."

Friday, May 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Bryant, "On a Case in which a Biliary Calculus was removed by Operation from the Bladder, and a Cure resulted."—Dr. Allen Sturge, "On a Case of Spondylitis Deformans."—Mr. Hulke, "On a Case of Sutural Junction of the Ulnar Nerve fifteen weeks after its complete Severance by a Roofing-plate; Early Restoration of Function."—Mr. A. T. Norton, "On Papilloma of the Bladder; Excision; Death."—Mr. Morrant Baker will exhibit a Case of Amussat's Operation for Artificial Anus.
ROYAL INSTITUTION.—9 P.M. Sir John Lubbock, Bart., "On the Habits of Ants."

Saturday, May 10.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. H. H. Statham, "On the Leading Styles of Architecture Historically and Æsthetically Considered."

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